

Original Correspondence.

TIN MINES—TIN SMELTERS—TIN TRADE.

IMPORTANT TO SHAREHOLDERS—"ONE AND ALL."

SIR,—On the 24th ultimo (a week ago), through your valuable Journal, I asked the managers and shareholders in tin mines—"What on earth they were doing or thinking of in allowing the produce of their mines to be wilfully sacrificed by selling at the present low prices of black tin?" And as I then stated, "Before the American war broke out black tin was bringing about 80*l.* to 90*l.* per ton, and now that the war is over we are quietly submitting to the ridiculously low price of 50*l.* to 55*l.* per ton." I also stated "that we ought to have an immediate rise of 10*l.* to 12*l.* per ton, and that ere long it would be up 20*l.* to 25*l.* per ton." Since my letter to you, on the 24th ult., a rise of only 3*l.* per ton has taken place. A similar rise is likely to take place, I am informed, in a few days; but what is this as compared with the enormous demand just springing up, as I shall presently show, for America, India, and the Continent, not forgetting also the demand for home consumption? Both tin smelters and some sleepy slow-coach mine managers and pursers may think I know but little of the present position of tin mines in Cornwall, and much less of tin smelting; but I would have these parties divest themselves of this idea, for I can inform them that I am acquainted with both, and perhaps as well as any tin smelter or mine manager in the whole county of Cornwall, and their present monthly sales of tin ores. There are, I am happy to think, a few of the leading tin mine managers who, having the interest of the shareholders at heart, will, I trust, do all they can to bring about a better state of things with respect to obtaining a better price. It is time that the whole county of Cornwall was aroused, and the subject fully considered at once by mine managers, pursers, and shareholders. In my last letter, I made the suggestion that unless the tin smelters gave an advance of 10*l.* to 12*l.* per ton, it would be better for the mines "to stock their tin" for six or twelve months, and for bankers or some financial company to lend money at 5 or 6 per cent. per annum on it.

Now, Sir, allow me to convey the fact to you, that already a great many tin mines—even calling mines (be it said to their credit)—have come to the determination to stock their tin, and it will forthwith be carried out. Several of the great tin mines have it under their consideration, and I would say to the shareholders of such a tin mine as Great Wheal Vor, who have got a good balance of cash now in hand—"Would it not be well for you to at once stock the tin—say, at any rate, for six months?" Suppose they sell, as they are doing, 70 tons per month, this would be 420 tons for six months; and a rise of 15*l.* per ton, would give 6300*l.* extra gross profit to the shareholders. Now, deduct 5 per cent. interest on money borrowed, 300*l.*, leaving a net 6000*l.* extra profit, or about 12*l.* per share for the half-year.

What applies to Great Wheal Vor applies also to all tin mines, but more especially to those selling large quantities. A whole twelvemonth's produce of all the tin mines in Cornwall and Devon, after all, is a mere bagatelle in amount—say, about 15,500 tons—value about 750,000*l.* only. If the tin mines could all agree, there are many financial companies that would be but too glad to come to terms to purchase the whole twelvemonth's produce—or, at any rate, would be willing to lend money on reasonable terms on it for twelve or eighteen months, and go to a certain extent into the speculation themselves. What do the Board of Trade returns, which were published yesterday, show for the month of September? The expansion of the American trade shows the enormous demand going on. The exported value in tin-plates alone to America is—for Sept., 1863, 44,719*l.*; Sept., 1864, 10,157*l.*; Sept., 1865, 126,600*l.*; and for October month I have good reason for believing it will be nearly 150,000*l.* Granted that it is, this will make for two months' exports (in tin-plates alone to America), say, 276,600*l.*; which is nearly equal to five months' produce of the whole counties of Cornwall and Devon (or, in other words, English tin), leaving out the enormous demand for home consumption, and exports to India and the continental capitals. These facts and figures speak for themselves. If, as I fully expect, the present demand will not only continue, but will further considerably increase, then I say the tin mine shareholders are entitled to a rise of 15*l.* to 20*l.* per ton on their produce (black tin), and it is their own fault if they do not get it. I shall continue to draw attention to this important subject, and do my best for "One and All."

ONE LARGELY INTERESTED.

TIN MINES—TIN SMELTERS—AND THE TIN TRADE.

SIR,—Your correspondent, "One Largely Interested," deserves the thanks of the shareholders in all tin mines for bringing the subject before your readers as to the policy of Selling or Stocking Black Tin whilst it is selling at such a low and unprofitable price to most tin mines in Cornwall. As he very justly observes, before the American war the price was 80*l.* to 90*l.* per ton; and now the war is over, we are getting only 53*l.* to 55*l.* per ton. As the time appears to have now arrived when immediate action ought to be taken, I would suggest that the managers, pursers, secretaries, and committees, and any of the largest shareholders in tin mines should meet at once, and take the matter into consideration. A meeting convened at Truro, and another in London, would be most convenient for all parties. The tin smelters meet three or four times a month to fix prices, &c. Why not the tin miners have their meetings, and a voice in the sales of their produce? — A LARGE SHAREHOLDER.

TIN MINES—TIN SMELTERS—TIN TRADE.

SIR,—In last week's Journal there appeared a letter on this subject. All persons versed in the Tin Trade must know that the writer of that letter was either grossly ignorant of the subject about which he wrote, or was attempting to deliberately deceive the public for purposes best known to himself. Some lookers-on imagine that a speculation in valueless mines may have something to do with such statements, but I prefer to put the matter down to ignorance. I trust, Sir, therefore, to your sense of fairness, and of what is due to the public, to allow me in your valuable columns to correct the erroneous statements and inferences contained in the letter referred to, and to warn those really interested in good mines not to join, or in any way assist, an undertaking that would recoil with severe loss upon those who foolishly embarked in it. Let us first look at the proposition made. The owners of tin mines are to force the smelters to advance the price of black tin at least 10*l.* to 15*l.* per ton. It is pretty well known that some of the smelters are in many cases part owners of the mines, and the others are so much interested in Cornish property, that there is no need of forcing whenever the path is sufficiently free from the competition of other tin. Then as to the manner in which this rise is to be forced upon the supposed unwilling smelters. The black tin is to be stored for six or twelve months. In the present state of the money market, I apprehend that rather a stiff rate would be required to induce bankers to advance largely on such an uncertain and unconvertible security as black tin. But suppose the advance obtained, the expenses of interest, storage, and insurance for 12 months would absorb the rise in value, and at the end of the time the tin so stored would have to be sold in competition with fresh raisings. Instead of sending black tin to 90*l.*, this operation would probably, as it did on a similar occasion, send black tin to 50*l.*, or thereabouts. In the meantime, whilst the minnies who paid interest and stored their tin would be absorbed in the pleasant anticipations of an enormous rise, the knowing ones would be quietly disposing of their stocks at the temporarily advanced price.

This brings us to the question really at issue—Has the time come when, looking supply and demand fairly in the face, the smelters can, consistently with legitimate trade, raise the price of tin? However unsatisfactory it may be to say "No," I fear that for the present this is the only honest answer to give. On this point your correspondent errs most grievously. He argues that because the American War is over the price of tin ought immediately to go as high as it was before, and says—"The Americans are only just now beginning to buy, and the stocks of both foreign and English tin are being quickly disposed of for export and home consumption." Nothing could be more untrue. It is well known to American metal merchants and others that enough tin has left Europe during the last two months to supply America for eight months, on the assumption (that has yet to be proved) that America is now consuming as much as it was before the late war broke out—(say) about 2000 to 3000 tons per annum of all sorts. It is most important to notice that this American demand has been supplied, and yet the stock of foreign remaining over is as great or greater than it was before it commenced. Most, but perhaps not all, of your readers may know that, so far from the stocks of foreign tin being quickly disposed of, there remained as follows on the 31st ult.:—Banco, in Holland, 6400 tons; Straits, in London, 2900 tons; Straits arrived, but not yet added to stock, 500 tons; Straits afloat, 1400 tons; total,

11,200 tons. These figures, which, for the sake of clearness, are given roundly, must be left to speak for themselves.

We dispose of the argument that tin ought to follow copper in its rise by the two following comparative statements:—1. The Chilean ports supply us with enormous quantities of copper. These ports are likely to be blocked; our supplies for the time are, therefore, likely to be lessened. On the strength of this copper has been very properly raised in price, and may, perhaps, be further raised.—2. The Straits ports supply us with enormous quantities of tin. These ports are quite free, and are now sending us extra large quantities at very low prices. On the strength of this your very logical and correct correspondent would have us believe in a large and rapid rise in prices. Such an argument is too puerile to be more than stated. And, not to trespass further on your space, allow me to repeat what has often been stated in the Journal, that the real cause of the rather, but not ridiculously, low price of tin is ascribable to the steady increase in the production of English tin, particularly at a time when America, one of our good customers, was taking less. This has caused—having lasted four years—such an accumulation of stock that it will take a long time to get rid of it. I would say to the English miners, reduce your production by shutting up the mines that do not pay, and invest your money in those mines that would sufficiently pay if the price were moderately and legitimately advanced. No rise can be permanent that is not based upon a reduced supply. A rise produced by hoarding the black tin must cause very severe losses to those who are so unlucky as to be largely interested.

London, Nov. 1.

W. S.

THE PROPOSED LEGISLATION FOR CORNISH MINING.

SIR,—A good deal has been said in Devon and Cornwall to condemn the Metalliferous Mines Bill which Lord Kinnaird attempted to introduce in the House of Lords, but as yet I do not hear of any good that is likely to come from it. For why? Because there are too many theory men meddling with a thing they know nothing about. Some say man-engines, others say skips, to draw men up from underground. Now, there is no man of sense who can condemn a man-engine for deep mines, such as Dolcoath, and many others I could name in Cornwall; but for three parts of the mines in Devon and Cornwall it is quite absurd to talk about the man-engine. The mines of Devon and Cornwall cannot be reckoned with the coal mines. Where they can sink a permanent shaft which will suffice for many years, in the metalliferous mines they are often sunk 60 or even 100 fms. below the surface, and nothing found in the lode worth while to work on; then this part of the mine is abandoned, and they, probably, go a quarter, or even half a mile off to commence another shaft, which may prove more successful. By this it will be seen that it is quite absurd to talk of laying out permanent works until the mine reaches a good depth, and proves its productiveness. The ladder-road, if properly fixed, can be made easy for the miners to climb; if a perpendicular shaft there should be a landing every 4 or 5 fms., when the ladders should be fixed here the same as in a diagonal shaft. If in a diagonal shaft, a landing every 10 fms. is sufficient.

As to ventilation, I believe there are many mines badly ventilated; this is owing, very often, to bad management; but there are exceptions. The adventurers would benefit by having the mine well ventilated, as well as the miner—more work can be done in the same time, and for less money. No man ought to be allowed to change in the boiler-house. Every mine should have a good changing-house, so that men could have their clothes dry, warm, and comfortable to put on. I think there is more harm done to the miners in putting on damp clothes than there is in climbing ladders. To remedy these evils there should be practical men to inspect mines—one for Devon and one for Cornwall would be sufficient; and if they find a mine badly ventilated, or ladder-roads improperly fixed, or the changing-house in a dilapidated state, they should first draw the agents' attention to it; and, if not remedied to their satisfaction at the time of the next visit, they should report it to Her Majesty's Commissioners. If this be carried out it will benefit the adventurers as well as the miners.

Lostwithiel, Oct. 31.

WORKING MINER.

THE PROPOSED LEGISLATION FOR CORNISH MINES.

SIR,—In my previous observations on this subject I have spoken of the report of the Royal Commission on Metalliferous Mines, and then reviewed shortly the nature of the opposition made by the miners of Cornwall to the Metalliferous Mines Bill of Lord Kinnaird, mentioning, at the same time, the great difference of opinion expressed by the mine agents as to the necessity of any legislation in the matter, and adding thereto a little personal evidence to show that not only is some regulating influence required, but that it is actually necessary to protect the working miners. My present object is to say a few words on the probable effect of the Cornish miners meeting the difficulty of any interference from the non-mining public by framing a bill of their own; and in doing this I propose as a test the manner in which Cornish coroners' juries have dealt with mine accidents in which life has been sacrificed through carelessness. It is said, but I cannot confirm the report, that Mr. F. Hill is preparing a bill, which he intends to propose, in the name of the miners of Cornwall, as a substitute for the bill known as Lord Kinnaird's Metalliferous Mines Bill. If this be true, it cannot but be expected that the Commissioners, the Government, and the Cornish miners will feel that a bill emanating from a solicitor's office in the town of Helston is not more likely to embody wise measures than would a bill introduced by the Government, built up on the evidence obtained by the Commissioners. In truth, it would seem rather more reasonable that a bill emanating from the latter source would be less contaminated with local prejudice than one framed by those directly interested in mining. Our Government, when they shall legislate in the matter, must, to a great extent, leave out of consideration the interest of the adventurer, and especially must they do so when they find that his interest clashes with the safety and well-being of the labouring miner. Now, this great duty of the Government seems to be quite ignored by the mine agents in discussing the subject, for they seem to think it a most unreasonable thing that they should be compelled to deviate from that course which they consider most conducive to the profit of the shareholders. These ideas are but too prevalent amongst the miners, and it is much to be feared that any bill framed by them will be hampered in its usefulness by this feeling. There is still, however, another great objection to any bill which shall emanate from any one section of the Cornish miners, and that is the extraordinary disparity of opinion amongst the best of the mine agents as to the details of mine management. No doubt this great difference of opinion is due, in a great degree, to the stunted knowledge of the mine agents, who, in most cases, have been raised to the position of agents from that of labouring miners, and who, previous to their elevation, have been without any other knowledge than that acquired in the village school, and the two or three mines in which they may have subsequently worked. As a result of this contracted sphere of experience, they are prejudiced, whilst, at the same time, they are an intelligent class. The precarious nature of the miner's calling, and the fact that he is dependent on the proper exercise of his judgment for his daily bread, sharpens his perceptive faculties, and raises him in intelligence above the general type of the labouring communities of England; still, it must be admitted that he is wanting in that extended knowledge which would enable him to generalise even on the subject which he best understands.

I have mentioned that Capt. Chas. Thomas, in his speech at the Camborne meeting, already referred to, admitted the desirability of some board of control to inspect the condition of the mines. The board he proposes shall be a local board, composed of the county members and of mine agents. He further proposes that the board shall obtain their information from the agents of the lords of the mine, or, as they are called, the "lords' tollers." This proposal altogether, I think, shows a great want of consideration. In the first place, it is perfectly certain that the county members could be but rarely present; therefore the board would be, to all intents and purposes, exclusively formed of mine agents. Such an arrangement would be, I think, most undesirable; and I do not believe the Government would sanction the mine agents sitting in judgment one on another, without any external control whatever. Let some such men as the county magistrates be introduced; or, at all events, some men of that stamp. In the next place, I would ask Capt. Thomas whether the lords' tollers, as far as his experience goes, undertake to examine all the working parts of the mine with that minuteness and care necessary to detect the shortcomings of the managers? I am sure he must say—No. Then, I say, it is not to such men the duty of inspecting the mines should be intrusted, but rather to men who shall be neither interested directly or indirectly in the mines they inspect, and who shall devote their whole time and attention to the work.

In applying as a test of the benefit of entrusting the control of the mines to Cornishmen alone the decision of the coroners' juries in the case of fatal accidents in Cornish mines, I will mention one accident which is indelibly impressed on my memory. In 1863, I was called on to go to the bottom of the Botallack Mine, and I performed the journey in a kind of

skip, or as it was termed "gig," running on rails, on an inclined plane, chain worked on a drum driven by a steam-engine. The down was a ney, on the occasion I refer to, was satisfactorily performed; but when we got into the gig to come up again, the motion became frightful. We were drawn up suddenly for a few yards, then let go back a foot or two, then suddenly drawn on again, and the jerks were so sudden, as in one instant to blow all our candles out, and in another to send our hats flying. The chain, however, proved good and true, and, after a terrible shaking, we reached the surface, but never in my life did I feel so thankful as when I stepped from that awful gig on to the landing on the cliff. Not many days after my journey down that mine, six miners were being drawn up in that selfsame gig, and by that selfsame chain, when a link broke, and the six men were hurled to destruction. A coroner's inquest sat on the matter, "Accidental Death"—yes, accidental death, without comment on the carelessness of the managers. I shall, however, never be made to believe other than that if the drawing-engine had been so supplied with water as to work evenly and regularly—and a very small outlay would have given modic action of the gig was due entirely to the want of a proper supply of condensing water for the driving-engine. I could mention many other cases, but I think this one is sufficient to show that the responsibility of the mine agents is not sufficiently appreciated, and that the ordinary class of miners are not the men to whom should be referred the decision in such important matters.

MEXIA.

DOES COAL EXIST NEAR LONDON?

THE SHOREHAM COAL SEAM.

SIR,—In reply to your correspondent, "Investor," I beg to state that I have been looking anxiously for someone else to say something about the Shoreham coal seam. I took several pounds weight away with me, and also some of the pyrites; I showed them to some of the Fellows of the Royal Society, the Chemical Society, the Geological Society, and also to several Lancashire coalmasters, and all without exception said they were the outcrop of a coal seam. I also tried it chemically, and found it was of caking or coking quality, and that its bituminous property was similar to the Newcastle coal—it gave gas, and tar, and ammonia. I have no doubt, if a well were sunk 15 or 20 yards deep in the field opposite to the New Dock at Shoreham, that it would go through the seam, and prove, at a small expense, that a valuable seam of coal is there, and be the best and cheapest means of proving that coal is to be found near London.

P.S.—I have no interest whatever in the locality, and, as you know, I am too far away for it to be of any benefit to me, and it is only for the public and national good that I name it.

Capel Carig, Oct. 30.

THE FORMATION OF COAL.

SIR,—Some weeks since, in an interesting article on the Formation of Coal, it is said, in referring to Mr. Young's theory—"It is decidedly more plausible, and less repugnant to ascertained facts, than any theory which had previously been suggested; and we have little doubt that at no distant period it will be accepted as the orthodox one." Now, I have no wish to enter into a controversy with you, but this is an opinion which should not be hastily expressed, and as the question is still unsettled, you will, perhaps, allow me to discuss it with Mr. Young. Your readers are deeply interested in it, and remotely it affects the more practical subject of the extent of our coal fields, which now occupies the minds of practical men. I take it that Mr. Young's theory is that "the formation of oil in the first instance is the real cause of the ultimate formation of coal." This theory rests upon a series of propositions, which must be true to have any weight in the argument. The first is that the theory "is consistent with 'the purity of coal,' for all impurities that did not decompose would, on account of their greater specific gravity, sink to the bottom. Now, Sir, in this large sense, coal is not pure. Every seam constantly varies in quality within a very limited area. In the South Wales coal field, from which all my examples shall be taken, a seam which in one colliery is of prime quality, is in the adjoining colliery unworkable. The impurities, too, are at the bottom, but run through the seams irregularly, sometimes as a band of culm impregnated with disintegrated sandstone and clay, and at other times as compact shale, and again as a carbonaceous grit (if I may use the expression) held together by sulphide of iron. *In situ*, coal is by no means pure enough to support the new theory. The second proposition is that the "generally uniform thickness of each seam of coal is perfectly in accordance with the idea of a liquid ultimately condensed." This, too, is contrary to fact. The seams of coal are by no means of one uniform thickness. We have veins which are called "The Nine Foot," "Five Quarters," and so on, but they vary in thickness, being reduced in places not far apart to one-half. Let us take a section or two from the Government Survey, to illustrate my meaning. Cwmgarw—1, arenaceous shale, 4 ft.; 2, argillaceous shale, 2 ft.; 3, coal, 3 ft. 4 in.; 4, underlay (siltmaria), 6 in.; 5, coal, 3 in.; 6, carbonaceous shale, 2 in.; 7, coal, 3 in.; 8, carbonaceous shale, 3 in.; 9, coal, 6 in.; 10, underlay (siltmaria), 2 ft. 10 in.; 11, coal, 4 in.; 12, underlay (siltmaria), 4 in.; 13, coal, 1 ft. Cwmgarw—1, argillaceous shale, 7 ft.; 2, coal, 4 in.; 3, carbonaceous shale and coal, 5 in.; 4, coal, 1 ft. 1 in.; 5, carbonaceous shale and coal, 6 in.; 6, coal, 6 in.; 7, underlay (siltmaria), 1 ft. 8 in.; 8, coal, 2 ft. 10 in. I could go on to any extent with similar sections to these, which I have taken at random. "Coal beds," to use the words of De la Beche, "when fairly traced out, are seen to occupy very variable areas. While some mark the extension of coal conditions over a wide space, others are far more local, even those which are in places thick. Again, single coal beds become split up into two, and even more beds, with interposed sandstones and shales."—"The Formation of the Rocks of South Wales," page 155.)

The other propositions, I conceive, have no bearing on the view of the subject to which I at present limit myself. They are the thickness of some seams of coal on one hand, and the exceeding thickness on the other; the preservation of fossils in the seams and in the superincumbent shales. All this constitutes poor evidence indeed in support of the new theory. For myself, I am not tied to any opinion. I have my own views, but I am open to conviction, and should like to discuss this subject with Mr. Young. Let him in the first place state his theory, and the arguments for it; or, if he prefers, we will investigate the old theory.

SAMUEL THOMAS.

Oct. 24.

THE MINERAL PRODUCTS OF GREECE—No. I.

SIR,—The working of metalliferous mines and metallurgical operations occupied the attention of the ancient Grecians at an early period. Towards the 70th Olympiad silver was extracted from the mines of Laurium, situated in Attica; gold was found in Thessaly, silver and gold in the island of Siphnos, silver in Epirus and the island of Cyprus, and the same metals in Macedonia (in the Pangean mountains) and in Thrace. The most considerable gold mines were those in Macedonia, to the east of Leopta-Hyla; they are said to have been worked by the Phœnicians, afterwards by the Athenians. These auriferous beds, in the neighbourhood of Leopta-Hyla, are said to have yielded an annual product worth 17,000*l.* Those of the island of Thasos were comparatively the least productive, but those of the island of Thasos were derived from the mines which the inhabitants of the united to what was derived from the mines which the inhabitants of the islands possessed on *terra firma* the yield was estimated at 44,000*l.* in 65,000*l.* yearly. According to Herodotus this was the amount of produce of all the mines to the west of Macedonia. According to some authors the value of the mines in this part of Greece amounted, during the reign of Philip of Macedonia, to 220,000*l.* The silver mines of Laurium are said to have furnished a good yield in the time of Themistocles; it was from resources furnished from these celebrated mines of Attica that a great man was enabled to place the Athenian maritime forces on such a warlike footing. These mines became less productive in the time of Socrates and Xenophon, and during that of Strabo were so barren that the works were confined to the reduction of ancient scoria. The Journal des Mines of June 23, 1864, informs us that a French company have lately obtained from the Greek Government the concession to exploit the masses of scoria discovered in the valleys of Mount Laurium. Ancient Greece possessed besides mines of precious metals those yielding other metals, such as iron, copper, and lead, particularly in Epirus, Macedonia, Thessaly, and Thrace; but the activity of the Greeks in mining industry declined under the domination of the Romans, and became finally extinct under the yoke of Mahometism.

In the newly-constituted kingdom of Greece the development of the mineral and manufacturing resources has been but slow; industry has not marched with the same pace as agriculture in a country newly franchised,

private dwellings and public edifices is held to have an effect in increasing the refinement and taste as well as the wealth of the country, the extension of this useful branch of manufacture may be regarded with satisfaction, not only in the interests of a company whose management has been characterised by energy and enterprise, but also in the interests of the public, and of Cornwall especially.

QUEBRADA LAND, RAILWAY, AND MINING COMPANY.

The report of the directors was submitted, which stated that the question of the title and conveyance of the property to the company remained in exactly the same position as when last explained. The board are taking most careful but decided measures to bring the matter to an issue, which they trust will be favourable to the company.

SIR,—Your correspondent who complains of the lack of information respecting the management of the lead mines in Monaghan, naming Coolarra, Tassan, and others, is by no means a solitary example, as you may judge by the enclosed extract from the *Irish Times* of Thursday, which begs you, on public grounds, to re-publish. This, if anything will, may have a tendency to promote public good.

Whilst proprietors of such properties as the Irish Mining Company conceal their information from the public, jealousy and distrust cannot fail to be engendered, mining in Ireland discouraged, and the properties depreciated. Were full particulars of Ireland's dividend and progressive mines published, as they should be, very different would be the feeling of capitalists towards such undertakings; the shares would be less liable to specious influences, whose originators only play upon the ignorance and fears of the proprietors. Why are not the statistics of the Irish-born proprietors of the Kesh, the Knockmahon, and other rich Irish mines published, as they are of the Kesh, as will Cackel, Coolraha, &c., shortly.

"Sir,—The Minin Company of Ireland has occupied a good deal of public attention lately. There is no concealing the fact that the shareholders are dissatisfied with the directors in not giving more frequent information as to the condition of the mine. Whilst having every confidence in the directors, I certainly do think they ought to give more information than they do to their proprietors and the public. I believe as to the condition of the mines I am correct in saying that the directors have a most favourable report from an English mining engineer of high eminence, whom I am told they lately consulted. I received a letter on Oct. 20 from a gentleman in Dungarvan, in which the following passages occur:—'The Knocknagone Mine is now turning out well. Had it been further worked a new and decided discovery would have been made. The dividend will be paid for two years.' It must be also remembered that copper has increased in value 10*l.* per ton within the last fortnight. For these reasons I should strongly urge the shareholders not to sacrifice their property as they are doing.—A SHAREHOLDER."

Sir,—The old adage, "Coming events cast their shadows before them," is applicable to mining at the present time. After a panic of unprecedented duration, brighter days are looming in the distance. Copper, tin, and lead all have an upward tendency, and, speaking on good authority, must further considerably advance in price. Some time since I stated what effect a rise of 10 per cent. in the standard for copper ore would make on the monthly produce of California and Nevada mines. In reply, it was said, "it would do nothing."

grants are given; up to this it has made a difference of 6000 per month on the present basis, the dividend is \$6.63 per share. Yet, with all this, the price of shares has not much advanced. The reason is that the mine is not a very profitable one, none affords better scope for the investor than Trezevant Mine, the shares of which are at a very low ebb. The present operations are of a very interesting character, and many a day strike into a course of ore. Within the limits of the sett there are three large champion lodes—the Old lode, Cady's lode, and Mitchell's lode. The object of the present company is to work the two latter, which are parallel to the one that produced such immense riches in a previous working. Each of these lodes, Cady's and Mitchell's, has produced shallow rich bunches in the eastern part of the mine, and the object of the present operations is to develop this unexplored ground west, by driving the shallow, middle and deep adit levels into it. The one furthest advanced is the middle adit, which is about 42 fathoms from surface. This end is getting into the same channel of ground as the one that all the ore in Trezevant and Brewer Mines, and one of a pretty similar description is already getting into. The ore is of the same quality, and, as to the matter, the mineral composition of the granite here being of the same character, as that in which the Trezevant lode is embedded—a basis of felspar, quartz, and mica enclosing crystals of felspar, and occasionally of quartz. This ground is also traversed by the same cross-courses, so that there is every chance of meeting with a similar deep deposit, for which this kind of ground is proverbial. The mine now stands on the market at the nominal price of 25000, so that it will be taken to the world that the least discovery must cause a great rise in the price of shares.

CHARLES BAWDEN

SEN.—The directors of this company wish to make a few observations on letters concerning it which appeared lately in the Journal, with various signatures. In the first place, not one penny of the company's money has been received by a director. The payments actually made to officers of the company amount to about 752l.; of that sum the late engineer (Mr. Calvert) received about 602l. in the course of less than 15 months and the secretary 150l. between the 20th July, 1863, and this day. The remainder of the moneys actually received by the company went towards necessary expenses on account of the mine, and of the company's establishment, during the two years which elapsed between the registration of the company and the 20th July last, when the directors received the first dividend. The directors of the company have never received any shares; and the sum would not have sufficed for these purposes without advances by the company's officers, both in England and Portugal. The directors felt that they should not be justified in inviting people to take shares in a mining company without a suretyhold of a mine, or liable in any degree to any but the ordinary risks attending a speculation. No doubt some persons have thought them too scrupulous in acting according to this opinion, but the shareholders have never had reason to be in doubt as to their views. They would add that not one of the present members of the company took shares at its instance, and that if anyone has been deceived about the mine, or what it is, it is not that the directors that he should be "adjudged" or "disgraced." Mr. Calvert and the Portuguese Government were in "ignorance of the fact that the directors charged above the sum of 1000*l.* a year," which the next passage in his letter shows he meant to say they took for themselves. But, first, Mr. Calvert could not but know this to be not the fact, but the grossest exaggeration; and, secondly, upon the directors learning, some months ago, that the proper Portuguese functionary in London had been directed to ascertain the character of the company and its affairs, offered him every facility for obtaining the fullest information, by an inspection of the books and otherwise. "Presuming," says Mr. Calvert, "that not one farthing was spent on the mine or the engineer, then that allotment (that is, 1000*l.* shares) would last us out five or six years." It is not true that the directors were ignorant of the fact that he had the actual case before him, and knew that what he was advancing differed essentially from the reality; he himself, as the engineer, having received upwards of 600*l.*, which, as he also knew, was more than half of what the company had received when the payment was made to him.

If Mr. Calvert believes that "the Portuguese Government look to the engineer as a responsible person" for the condition or employment of a company's funds, as he seems to profess to do, it is not because there is anything in the laws, regulations, or customs of Portugal concerning mines to give rise to a belief in such an absurdity. It was because he was well known to the Government at Oporto that Mr. Calvert was so highly recognised by the Portuguese Government as the company's engineer, but simply and solely because he could not (although he had said he could, and would) show himself to be qualified for the post, according to the law of Portugal.

He says that he "came back to London indignant," "disgusted," and "determined to be done with the affair." The directors, however, never received a hint that he even thought of resigning until after a general meeting of the company had been called, to resolve whether the Article of Association under which he held office should be rescinded or no. On the day that the meeting was held his resignation was presented, and he told his directors nothing more than what he did with him resigning; but by his resignation (the directors consenting) a resolution of the meeting was avoided. Mr. Calvert went to Oporto after he had resigned, taking with him orders which secured him

the payment of his salary, as it became due, up to the day of his quitting the company's service. Such an article as the one alluded to no company would dare to rescind, or an engineer holding office by virtue of it permit to be cancelled without sufficient reason.

Mr. Calvert tells you that he holds a power of attorney from Mr. Russell. Certainly under the show of serving Mr. Russell, he some time ago demanded from the directors twice as much as was due to him from the company, the demand being accompanied by a threat. Mr. Russell, however, is in direct communication with the directors, and they thought it right, previously to addressing you, to call his attention to Mr. Calvert's letter of the 30th ult. They have not received his reply, but he has written to them to state that he will not waive Mr. Calvert's power of attorney, though he did request him, in an ordinary letter, about a year ago (before any payment had become due to him, Mr. Russell), to make arrangements with the board for the settlement of his claim. The directors are assured that he entirely disapproves of Mr. Calvert's interference, and they have no doubt but he is satisfied with the payments made to him.

Essex-street, London. G. J. JOHNSTON.

SERPENTINE.—Amongst the ornamental building stones introduced during the past few years in the new buildings of London, and other large cities, granite and serpentine have advantages which no other stones yet tested can claim—great durability combined with extreme beauty. The fracture of the common serpentine is harsh and brittle, but that of the commercial serpentine is conoidal, breaking in flakes like slate. It is adapted for taking the finest carving, and wears even better than granite, inasmuch as lichens (which, of course, harbour insects and retain damp) will cling to granite but not to serpentine.

Several church towers in the neighbourhood of the Lizard Museum at Lizard, Cornwall, and the stone also retains its polish up to and down to the Geological Museum at Oxford there were recently a number of monuments presenting the various limestone marbles and ornamental stones.

The roof the museum was removed, and continued to be so, the column being mean while wrapped round with hay bands. When this covering was removed the serpentine and granite the polish remained perfect, and upon those stones only. It will no doubt be interesting to numbers to know the comparative degrees of strength of serpentine, Portland stone, and Devonshire marble, and therefore the statistics of the test made before the committee of the Institute of British Architects, on Aug. 7, last year, is subjoined. The shafts of each material were 1 ft. in length and 3 in. in diameter. The trial resulted as follows:—

	First fracture.	Broken.
Portland stone, No. 1	7.0	10.35
Ditto, No. 2	8.7	8.7
Devonshire marble	9.2	10.7
Serpentine, No. 1	12.15	16.25
Ditto, No. 2	16.92	17.62

The figures relating to the fractures represent the hydraulic pressure applied, and indicate the superior weight-bearing qualities of serpentine. Thus it is shown that in regard to polish, hardness, strength, durability, and beauty, serpentine is a stone that is very desirable for the ornamentation of buildings, and in an age when the adornment of

Colonel STRANGE, seconding the proposition, stated that the Chairman had so fully explained the position of the company, that he (Col. Strange) need only say that he had had lengthened discussions with their resident engineer, and, so far as he could learn, there appeared to be no very great engineering difficulties in the way of constructing the railway from the port to the mines—the greatest difficulty they had to contend with was the unhealthiness of the climate, and the high cost of the labour. They had lost several of their valuable officers, and he knew, from experience in India, that it was a greater obstacle to the construction of public works than the sickness of any portion of the country. They were at present busy searching for competent medical officers to send out, and nobody who had not had experience in tropical climates could know what an assuring effect the presence of medical officers had upon those engaged upon works in such countries. As regards the question of raising further capital, the fact was this, that unless additional capital were raised, all that had been expended was utterly useless. When it is considered how large the profits would probably be, a preferential dividend of 10 per cent. would but slightly affect the aggregate profits. He said it was not without some hesitation that he had accepted the office, and the more especially as he had so strongly opposed it almost all his life. He thought, however, that he knew from experience what a tropical climate was, and he thought, with fair precautions, and with the blessing of God, he might possibly escape the effects of the tropical fevers—at any rate, when a duty had to be performed some risk and danger must be incurred; and they all, as Englishmen, understood that such was their mission in this world. He, at present, held a Government office, and he could only ac-

A SHAREHOLDER asked if the account with Mr. Pittar had been closed?—Mr. Consul HEMMING (one of the auditors) replied that the books showed that Mr. Pittar had received 2465*l.* beyond the amount of his certificates.—Mr. SALMON explained that there was an amount of 7250*l.* chargeable to Mr. Pittar, supposing they had any account to settle with him.

Mr. Consul HEMMICK, referring to the means of communication proposed for the conveyance of the ore, said that, under the existing circumstances, the directors had done what he should have done. His opinion was, that as the railway had so far progressed, it should be proceeded with to completion.—A SHAREHOLDER thought they would only be doing justice to themselves to subscribe the additional capital. Supposing it were raised by shares bearing a preferential dividend of 5 or 10 per cent., he was perfectly satisfied the original shareholders would still receive a very handsome dividend.

Mr. W. G. TATFELT said that Col. Strange's visit to Venezuela would have the effect of bringing about confidence in various ways. He suggested that when the additional capital was raised all the losses that had been made should be written off. He objected to preference shares upon principle.

Mr. J. SALMON said the question of finance was one which must be grappled with at once, and the reason it had not been referred to upon the present occasion was that it should not come upon the minds of the directors by surprise. But, be it understood, the directors did not propose to take power to increase the capital, but to adopt the best means whereby to deal with the 8000 shares which the shareholders some time since empowered the directors to issue. If it should be agreed to issue those shares at a certain preference, he thought the directors might state that not more than 3s. per share would be called up, unless with the sanction of the shareholders, for should a larger amount, say 4s. per share be required, it would probably have to be raised by the sale of the railway.

The trial resulted as follows:—	First fracture.	Broken.
Portland stone, No. 1	7.3	10.25
Ditto, No. 2	8.7	8.7
Devonshire marble	9.2	10.7
Serpentine, No. 1	12.15	16.25
Ditto, No. 2	16.91	17.62

The figures relating to the fractures represent the hydraulic pressure applied, and indicate the superior weight-bearing qualities of serpentine. Thus it is shown that in regard to polish, hardness, strength, durability, and beauty, serpentine is a stone that is very desirable for the ornamentation of buildings, and in an age when the adornment of

HOLLOWAY'S PILLS AND OINTMENT—INFLUENZA, COLDS.—In diseases of the throat and chest, so prevalent in this country during the winter, nothing so speedily relieves or so certainly cures as these inestimable remedies. These disorders are too often neglected at their commencement, or are injudiciously treated, and, in a moment, the patient is in a dangerous condition. If the patient, however, uses Holloway's medicines when the first symptoms appear, recovery will be possible; they will retard the alarming symptoms till the blood is purified and nature consummates the cure, gradually restoring strength and vital nervous power. By persevering in the use of Holloway's preparations, the morbid humors will be expelled, the system will be renovated, and the expelled, morbid matter is expelled, and a happy revolution occurs throughout the system.

engine shaft, we expect to hole to the mine sunk below the 80 next week; rising by four fms. at 21. per fm. The incline shaft is sinking below the 120, by six men, at 121. per fathom. The 120 west is driving by four men, at 51. per fm. The 120, east of incline shaft, is driving by four men, at 61. per fm. The 110 west is driving by two men, at 71. per fm.; and the 100 east, by two men, at 71. per fm. Gooding's shaft is sunk 8 fms. below the 80; sinking by four men, at 71. per fathom. We have sold this day 12 tons 10 cwt. 3 qrs. 26 lbs. of black tin, at 55s. 2s. 6d. per ton.

WHEAL VLOW.—J. Tonkin, Wm. Johns, Oct. 30. Gooding's engine-shaft is now down 3 fms. below the 80; the lode is 12 ft. wide, worth 601. per fm. for the length of shaft, 12 ft. In the 20 east the lode is 6 ft. wide, worth 161. per fm. In the 30 west the lode is 7 ft. wide, worth 161. per fm. In the 20 east the lode is 5 ft. wide, worth 51. per fm. In the 20 west the lode is 3 ft. wide, worth 51. per fm., and showing indications of improvement. We have not yet any water to dress the mines.

WHEAL VOR.—W. Hawden, Nov. 2: The tribute pitches throughout the mine are progressing favourably, and no alteration has taken place worthy of comment in any other part since my last report.

MINING NOTABILLIA.

[EXTRACTS FROM OUR CORRESPONDENCE.]

CORNISH SHARE MARKET.—It is well known that at this season of the year the Mining Share Market is usually flat, yet this would scarcely account for the present depression, as it was reasonable to hope that the upward tendency in the price of minerals would have acted as a counterpoise to the gloom of the autumn and winter.

WEST GREAT WORK.—In the 36, driving west from Paul's engine-shaft, the lode is 2 ft. wide, opening good tribute ground. The great north lode maintains its value at every point. The shaft is worth 101. per fathom; 8 west, 141.; and east, 61. per fathom. Black tin sold on Thursday last 5 tons 4 cwt. 5 qrs. 1 lb., which realised 591. 5s. per ton. It must be borne in mind that this sale is four-monthly only. The mine is looking extraordinarily well, and will, in all probability, prove equally rich as the celebrated Great Work Mine, which is in its immediate neighbourhood.

AT EAST HERODSFORD, the lode in the adit end south, which is of an encouraging character, is 2 ft. wide, containing mudite, impregnated with copper and lead ores.

A favourable change is reported to have taken place in the 40 fm. level end east at Wheal Thynne. This mine is well worthy of notice.

CAMBORNE VEAN.—The quarterly general meeting passed off very satisfactorily on Wednesday, a call being made of 2s. 9d. only. It is stated the mine would have paid its way the last four months, but for the long drought causing the stamping-power to be idle for a considerable time. The erection of a large boiler-house was a great additional expense incurred. Shares have within a few days been purchased by the pursuer, which is considered to speak well for the prospects of the mine.

WEST CONDUROW meeting is being held to-day, and a call of 1s. 10d. or 2s. per share is anticipated. The accounts show a loss on the four months' working of about 5001., whereas the loss on the three months prior to the last meeting (June 29) was 1001. In excess of this sum. In my next communication, I hope to be able to refer to the Wheal Unity Consols.—ALBERT E. PRINCE, Camborne, Nov. 2.

PEDN-AN-DREA.—A new lode in the 120, west of sump-shaft, has been intersected, north of Skinner's lode; they have commenced driving on its course. It now produces fair quality stuff, and if it holds as at present, will materially help the monthly cost. Cardon's lode has improved, being now worth 201. per fathom.

DEVON WHEAL LOPES.—The works at these mines progress as well as can be desired, under such able management as that of Captain Joseph Richards. The shares are expected to make a rapid advance as soon as the water is out of the mine, and the expected returns made. The shares being so well held prevents many being on offer in the market. No transactions, we believe, but by a few necessitous sellers, have taken place for some time, and even these have been at premium rates. The well-known former richness of the mine for blende, at that time unobtainable, is a striking inducement in this adventure. Many mines are now set, or about to be set, to work solely to obtain this mineral, which is now obtaining prices more remunerative than the generality of the copper ores of Cornwall and Devon, besides which blende is universally considered to be the surface deposit or indication of large deposits of copper lead beneath, especially in strata similar to that which Devon Wheal Lops is situated.

COOLATHRA AND BOND MINES.—The discoveries reported from these mines continue to improve. In sinking below the 25 to the 36 fm. level they have a change of ground from white to light blue killas, and are now free of the elvan, which has been such a difficulty hitherto. At this junction or change the ground was dislocated; a number of strings or dippers had been observed, varying in size from 1/4 in. to 1/2 in. thick; these united at the change of rock, and now they have a lode fully 10 in. wide, nearly solid lead, increasing in width as it descends; should this hold down to the 36, as all appearances warrant the hope of, there will be a large lot of rich ore to be taken away at a very little cost. In another part of the mine, where lead was met with, as previously noted, the lode has improved very much; this has not yet been sufficiently wrought to give a decided opinion, but as far as seen promises well, and in the 15 fm. level they have a lode 4 to 5 ft. wide, producing good saving work. In the works executed under the direction of the late agent, the men were allowed to pick out the eyes of the mine, and have left the levels in a very bad state; but what could be expected from an agent who only attended two or three hours per month, and sometimes six weeks elapsed without his presence? As soon as these levels are in order tribute work will be resumed, as men are willing to take several places in the old backs, on remunerative terms. So much for having mines under the management of practical miners, and not employing mere theorists, even if they be capable of pleasing directors who are ignorant of mining business and mine workings. Your applicant (in last week's Notice to Correspondents) from Glasgow may well wonder no reports have been published respecting the lead mines of Monagan; he will not long have to deplore that, as the Coolathra and other mines will soon declare for themselves in the plainest and best of all mining vocabularies—the Ticketing List.

CASHIEL MINE is now about to be resumed, and will be properly wrought. The water is being pumped out previously to commencing to stop, when the theory of flat lodes will receive a further elucidation. Although the mine is no more than 10 fms. deep from the surface, 9 tons of lead have been raised and sold, the produce of merely sinking the shaft. When the water is forked there will be pitches set on tribute, as well as the lode be set to sink on, so that ore returns may be made in a very short time. At present the mine is in the hands of a few gentlemen, who have determined to try whether the mine is really worth developing before undertaking the responsibility of forming a large company on the limited liability principle.

GREAT NORTH DOWNS.—The lode in the 86, west of King's shaft, has greatly improved, now worth 151. per fathom.

WHEAL KITTY (St. Agnes) has much improved. Pryor's lode, below the 65 fm. level, is worth 701. per fm., and has produced 28 tons of black tin in 20 fms.; and the same lode is improving in the 65 fm. level.

BEERALSTON.—In clearing the adit level in the Beeralston Silver-Lead Mine they have met with some very rich stones of silver-lead ore coming down from the backs, and there is little doubt of there being a large deposit of lead ahead of them, as the hill is from 60 to 70 fms. high. I hear that the ore is worth for silver and lead 341. per ton. This I hope ere long will make our town more lively than it has been for many years past. I hear the lease is already taken up from the Earl of Mount-Edencombe, and it is fully believed it will become a valuable property, as the mines already worked have proved to have been very productive.

CASHWELL.—This mine sold 40 tons of lead ore last week, at 131. 15s. per ton. This sale leaves a profit of about 50 per cent. The hydraulic engine continues to work well. The eastern end will add to the returns in a few weeks.

EAST BROOKWOOD.—The works are being carried out in a miner-like manner, and shareholders are likely to be well repaid for their outlay. No. 2 lode is being driven on in a good channel of ground at the 20, producing good stones of copper, intermixed with quartz, and looking well for still greater improvements. They have cut through about 4 feet on No. 3 lode at this level, in the trial shaft, which yields good stones of yellow ore, the composition of the lode is chiefly quartz, with yellow copper, altogether a highly-promising lode, which will yield an abundance of ore. A finer champion lode cannot be seen.

SOUTH TREVENNA.—We hear from this district that operations have commenced, and that the mine is now in fork, the examination of the levels proving the prospects far exceed the statements set forth in the prospectus. It appears they have only about 7 fms. to rise to hole from the 25 to the adit level. This will ventilate the mine, and give 35 fms. of backs on a splendid lode, 5 to 6 ft. wide, whole to the 10, to drive on and stop away at an easy cost, running the whole extent (about one mile) east and west on the course of the lode. With its neighbour, Wheal Trevenna, doing so well, the prospects of a considerable rise in the tin standard, the numerous lodes, and the easy amount payable on the shares should be an inducement to mining investors to secure an interest whilst it is open to them.

ELLEN UNITED MINES.—A preliminary meeting of this company was held at the office, 28, Princess-street, Manchester, on October 24, which was largely attended. Considerable interest in the future of the mines was manifested. Capt. Tonkin, of Chacewater, the resident agent, was present, and gave every required information, explaining the maps, plans, &c., of the ground, and pointing out the places whence the rich specimens displayed had been procured. The meeting was of the most cordial character; various resolutions, expressing a determination to carry out the works with vigour, were passed, and moneys subscribed and paid in to immediately commence with, so that no delays may take place. Directors of standing, influence, and business habits, were elected, the officers for carrying out the affairs appointed, and all the business necessary to such a meeting transacted. The detailed prospectus will be issued in a few days. The company is to consist of 15,000 shares, at 21. each, 5s. payable on application, and 10s. on allotment; no future call to exceed 5s. per share, or at less intervals than three months. At the meeting it was announced that no less than 10,000 out of the 15,000 shares had been taken up, since which time so much confidence has been established in the bona fides of the concern, and the character of the promoters and directors, that numerous additional applications have been received, particularly from the neighbourhood of the mines. The mines are in the centre of the St. Agnes and Redruth copper mining districts, and are to be under the superintendence of Captain John Tonkin, late of the Morro Velho and St. John del Rey Mines.

NEW HENDRA MINE, which a short time since was quite unknown, was first started by a few local parties of limited means; it, however, soon got into the hands of influential gentlemen, and is now under the same management as the Great Wheal Vor. The mine is quite a new one, in the same parish, and at a small distance from the Great Wheal Vor. The sett contains a great number of lodes, and although none of them have yet been wrought on but to a few fathoms below surface, large quantities of tin are being raised, and a great extent of tin ground opening out. An engine has just been erected for pumping and stamping purposes, and the dressing floors laying down with all speed. From present appearances this will prove one of the best tin mines opened up in this district for many years, and will lead to other explorations in the adjoining lands, which, apparently, throughout the mining career of this district has been entirely neglected. The main lode, which is large, has been opened on for more than 100 fms. in length, and tin of good quality found at each point of operation. As soon as the dressing machinery is ready returns will commence of the most pleasing nature.

STIPERSTONES.—Capt. J. Nancarrow, in reporting on this mine, says—"We expect to begin to dress ore on or about Nov. 1, and to have the crusher ready about the 15th. From the above you will see that we are opening out a first-class mine, and raising all our ore from one lode. Now, when we get the pumping-engine to work, which will be about the end of the year, we shall be in a position to work on four or five other similar lodes in addition, and there is not the least doubt of our returns being large, and the profits to the adventurers commensurate accordingly."

EAST LAXEY.—As will be seen by the report, which appears in another column, the prospects of this mine are of no mean order. Although the operations have been extended to a depth of only a few fathoms below the adit, such specimens have been produced as fully justify the hope that the most remunerative results will be realised when the mine has been opened out.

The Mining Market; Prices of Metals, Ores, &c.

METAL MARKET—LONDON, NOV. 3, 1865.

COPPER.				BRASS.			
Best selected.	p. ton	99	0 0 0	Sheets	Per lb.	104	11d.
Tough cake & tile	"	95	0 0 0	Wire	"	93 1/2	10 1/2 d.
Burra Burra	"	86	0 0 0	Tubes	"	10 1/2	11 1/2 d.
Copper wire	"	12 1/2	0 13 1/2	STEEL.			
ditto tubes	"	13	0 14	Swedish, in kegs (rolled)	13	0 14	0 0
Sheathing & bolting	101	0 0 0		" (hammered)	15	0 16	0 0
Bottoms	106	0 0 0		Ditto in faggots	16	0 16	10 0
Old (Exchange)	87	0 0 0		English, Spring	18	0 23	0 0
IRON.				QUICKSILVER (per bottle)	8	0 0	nom.
Bars Welsh, in London	7 12	6 8 0 0		SILVER.			
Ditto, to arrive	7 18	0 0 0		Foreign	21	10 0 0	
Nail rods	8 10	0 0 0		To arrive	21	10 0 0	
" Stafford, in London	8 10	0 9 15 0		ZINC.			
Bars ditto	8 12	6 11 0 0		In sheets	27	0 25	0 0
Hoops ditto	9 15	0 10 10 0		TIN.			
Sheets, single	10	10 11 0 0		English, blocks	97	0 0 0	
Pig No. 1, in Wales	4	10 0 5 10 0		Ditto, Bars (in barrels)	98	0 0 0	
Refined metal, ditto	4	0 0 5 0 0		Ditto, Refined	100	0 0 0	
Bars, common, ditto	7	0 0 7 5 0		Banca	96	0 0 0	
Do. merch. Tynes of Toss	7	10 0 0		Straits	95	0 0 0	
Ditto, railway, in Wales	7	0 0 7 5 0		TIN-PLATES.			
Ditto Swed. in London	11	0 11 10 0		IC Charcoal, 1st qua. p. bx.	1	12 0 0	
To arrive	11	10 0 0		IX Ditto 1st quality	1	18 0 0	
Pig No. 1, in Clyde	2	17 6 3 7 6		IC Ditto 2d quality	1	9 0 0	
Ditto, f.o.b. Tynes of Toss	2	9 0 0		IX Ditto 2d quality	1	15 0 0	
Ditto, Nos. 3, 4, f.o.b. do.	2	6 2 6 2 5 6		IC Coke	1	6 0 0	
Railway chairs	5	10 0 6 15 0		IX Ditto	1	12 0 0	
" spikes	11	0 12 0 0		Canada plates	13	10 0 0	
LEAD.				In London; 20s. less at the works.			
English Pig, ordry. soft	21	0 0 0		Yellow Metal Sheathing	p. lb.	9 1/2 d.	
Ditto (WB)	21	0 0 0		Sheets	p. lb.	9 1/2 d.	
Ditto sheet	20	10 0 15 0 0		Indian Charcoal Pigs	7	0 0 7 10 0	
Ditto rod	22	0 0 23 0 0		In London only.			
Ditto white	26	0 0 27 0 0		At the works, 1s. to 1s. 6d. per box less.			
Ditto patent shot	28	0 0 0					
Spanish	19	0 0 0					

REMARKS.—The Metal Market has continued to exhibit a very healthy appearance during the past week, and prices generally have become much firmer, and have shown a tendency to still further advance. Enquiries are now very considerable, and orders are coming in rapidly, so that there is in every direction a disposition to look most favourably forward to the future; and we have now no doubt whatever that business in metals will soon become very extensive, and that we shall speedily return to a very satisfactory condition in the metal trade. In some metals prices have shown such a manifest disposition to advance, and such an entire reaction has taken place, that a large speculative business has been the consequence, which has caused considerable activity to spring up in the market, and given an impetus to the trade which it has not known for many months past. This state of things is very encouraging after the period of dulness that has oppressed the Metal Market for so long a time. It is earnestly to be hoped that this state of things may continue, and that nothing may arise to interfere with the prosperity which seems now to be coming upon the metal trade.

COPPER.—Since the late advances the market has continued very firm; and should the report prove correct that there are political difficulties in Chili, not only will the holders of that description be less disposed to sell, but it will have the effect of causing increased firmness in the market for English, and perhaps lead to another advance.

IRON.—In Staffordshire there is a slight abatement in the orders given out, as is generally the case after quarter-day; the trade, however, continues healthy, and the works are well employed, except in some cases for shipbuilding plates, the demand for which keeps dull. The American orders have hardly been so good during the last week, but it is understood that the North Staffordshire houses have large specifications in hand from that country. In Welsh, since the commencement of the quarter, there has been a tendency to further improvement, and orders have been sent in so freely by buyers that prices are firmer than has been the case for some time past. This has not been the result of any special cause, but from nearly all the markets, both home and foreign, there has been a good enquiry, which, combined with the expectation of a large trade with America, has brought about a feeling of substantial confidence in the future; more hands could now be employed at the works, which indicates that there is no scarcity of specifications. In Swedish iron there is rather more enquiry. In Scotch pig-iron the market has, upon the whole, declined, and the amount of business transacted has not been very extensive. At the commencement of the week the price stood at 58s. 3d. cash, but declined to 58s. 1 1/2 d. cash; it, however, again rose to 58s. 3d. cash, and 58s. 6d. one month, and afterwards to 58s. 6d. cash, and 58s. 10 1/2 d. one month. After this, however, it declined again to 58s. 1 1/2 d. cash, and 58s. 6d. one month, and then to 58s. cash, and 51s. 4 1/2 d. one month, and the late advices from Glasgow announce a further decline to 57s. 7 1/2 d. cash, and 58s. one month.

LEAD.—The market continues firm, with a good business doing, and prices may now be quoted at 201. 10s. for common English pig, 211. for LB, and 211. 10s. for WB.

TIN.—The market for English is very firm at the recent advance, and smelters are declining to accept contracts at present quotations; there is, therefore, every probability of another advance being announced ere long. The demand for Straits continues very active, and a very large business has been done at 941. 10s. and 951. cash, and 961. to 971. for arrival; the prospects of the market are very encouraging. The stock of tin in warehouses in London on Nov. 1 was 2855 tons, against 3742 tons the same time last year; and the quantity of Straits against Europe is 1409 tons, against 1111 tons same time last year. In Holland the market for Banca is firm at 57 1/2 fls. The stock of Banca in warrants on October 31 was 121,759 slabs, against 75,350 slabs same time last year; and the arrivals for the next sale are 73,014 slabs, against 47,185 slabs the same time last year.

SILVER.—Although business is not very active, yet holders are firm at 211. 10s. on the spot. The stock in warehouse in London on Oct. 31 was 6684 tons, being a decrease of 123 tons during the month.

TIN-PLATES.—Very great activity is evinced in the trade, and orders are in arrears at many of the works. The leading firms are asking 32s. per box for IC charcoal at Liverpool, which is an advance of 1s. per box on the price agreed upon at the quarterly meeting.

STEEL.—Rather more enquiry.

QUICKSILVER.—The demand has rather improved.

THE IRON TRADE.—[GRIFFITHS'S BI-WEEKLY REPORT.]

WOLVERHAMPTON, NOV. 3.—The Iron Trade continues steady, and we have had more iron turned out last week in Staffordshire than in any week during the last six months. This favourable change in production is mainly owing to the more cool state of the atmosphere, which enables the puddlers now to stand constantly at their furnaces. The iron trade in America has sustained a slight check, owing to the adverse fluctuations in the price of gold there; on this account our last advices report the demand for American brands in New York less active, and prices not so firm. This must have its effect on the market here. Our mills and forges continue in tolerably full operation. The demand for hoop-iron of most kinds continues unabated. Angle-bars, T-iron, use-iron for building purposes, thin sheets, and galvanising sheets continue in good request. The small mills are all active on small sizes, particularly low numbers. Nail-sheets, however, are in slow request, the price being as low as 81. per ton, delivered into Birmingham. The demand for boiler-plates and boat-plates continues bad, and numbers of mills, both in North and South Staffordshire, are working short time for want of orders. The demand for common second-class bars is tolerably active, but the price ranges from 10s. to 15s. below the list price. We have had but few orders for best bars since our last report. A fair business is doing in rods for district consumption. We are well informed that the French makers are likely to become competitors for this part of the trade in our district. We have very little business doing in pig-iron; the pig-makers, however, continue firm at our late quotations, while the manufacturers are less anxious than they were a week since to effect purchases. The trade in South Staffordshire must be reported a shade quieter. The meetings at Wolverhampton and Birmingham this week were by no means so well attended as of late; the business done was limited, with a decidedly quieter market.

THE LIVERPOOL METAL MARKET.—NOV. 2.

PIG-IRON.—The market has been flat all the week, and to-day rather worse; very little business done, but a few buyers at 58s. 6d. We shall have little improvement till money is cheaper.

MANUFACTURED IRON.—Shipments continue large, and all sorts of iron

is in really good demand. Common bars are tolerably stiff in price, and may be quoted 61. 15s. to 71. 5s., f.o.b. in South Wales. The brass trade is brisker, with the exception of iron shipbuilding, which is still slack. **TIN-PLATES.**—Although the demand still continues excessive, prices are, if anything, a shade lower. Common cokes were sold last week at 24s. 6d., but now can only fetch 24s. November is always the worst month for the tin-plate trade, and towards Christmas we may look for a considerable revival, and possibly much better prices.

COPPER is very firm, at smelters' prices; holders not anxious to sell. A good trade has been done since the last advance, and we should not be surprised to see the prices again raised.

TIN is in fair request, but only a moderate business doing. Smelters are rather too stiff in their prices. We shall certainly see no further advance at present. **LEAD** is firm at present quotations.

BIRMINGHAM, NOV. 3.—Rylands' "Iron Trade Circular" says—"Our market good; pig-makers firm, decided not to go back; some good orders given out both for pigs and puddled bars. Plates inclined to be slightly better in order."

The settlement of the fortnightly account in the MINING SHARE MARKET took place on Tuesday, and was rather heavy, while the business since transacted has been of more than average amount. The continued rise in the standard for copper ore, and the expected advances in tin, are very favourable features for the miner, and we look forward to more remunerative prices in metals than we have had for several years past; and this the smelters put up copper 101. per ton—51. on the 17th and 51. again on the 25th; the present price is 961. to 971., and we shall hope to see it 1201. Tin, we are told, has again advanced 31., but the miners will not be satisfied till they get the price they received before the American war—801. per ton; and to secure this, many of them are about to stock their tin, on advances at 5 per cent. According to the returns of the brand of trade, the tin-plates exported to America in Sept., 1863, amounted to 44,0001.; in September, 1864, to only 10,0001.; and in September of the present year they increased to the extraordinary amount of 126,6001.; and when we state that the whole produce of Cornwall does not much exceed 50,0001. per month, it will be manifest that with such a demand a great rise in price must take place, though the smelters will defer it as long as possible. Devon Great Consols, 575 to 580; Carn Camborne, 34s. to 36s.; Drake Walls, 12s. 6d. to 17s. 6d.; East Basset, 17 to 19; Clifford Amalgamated, 20 to 20 1/2; East Caradon, 9 to 9 1/2; East Carn Brea, 5 to 5 1/2. West Chiverton shares have advanced to 80, 82 1/2, and in good demand; the 80, west of Burgess's, has improved to 351. per fm.; and the 90, west of Hawkins's, on the two lodes, is worth 1201. per fm.; at the meeting, on the 16th or 17th, the dividend will be from 30s. to 40s., and a large sum added to the balance in hand. Chiverton Moor, 7 1/2 to 7 1/2; there is a good lead lode in the 30 and 40 fm. levels, and in a good channel of ground. East Russell, 3 to 3 1/2; East Rosewarne, 1 1/2 to 2 1/2; East Wheal Grenville, 3 1/2 to 3 1/2; Great Busy, 4 1/2 to 4 1/2; Great Laxey, 20 to 21; Great North Downs, 2 1/2 to 2 1/2; Great Wheal Vor, 36 to 37; Hingston Down, 4 1/2 to 5 1/2; Marke Valley, 3 1/2 to 3 1/2; North Roskear, 10 to 11; North Treskerby, 3 1/2 to 3 1/2; Providence Mines, 36 to 37; South Basset, 4 to 6.

Gonnam's shares have advanced to 2, 2 1/2, and in good demand. Gopin's lode has been reached in the cross-cut south, in the 114, and driving commenced to cut the rich shoot of ore gone down below the 90. The ends in the 102 and 114, west of shaft, on Sarah's lodes, continues worth 21 tons each per fm., and the winze below the 90 is worth 5 tons. As soon as the winzes are holed (which will be in November) with the 90 and 102, and the 102 and 114, the samplings will be doubled from this lode alone. South Condurow, 32s. 6d. to 37s. 6d.; South Grenville, 6s. to 8s.; St. Day United, 5s. to 10s.; Tincroft, 18 1/2 to 19 1/2; West Caradon, 10 to 10 1/2; West Condurow, 17 1/2 to 18 1/2; Wheal Basset, 7 1/2 to 8 1/2. Wheal Chiverton, 9 to 9 1/2; we understand lead will be raised from the bottom level against the meeting. Wheal Grenville, 3 1/2 to 3 1/2; Wheal Kitty (St. Agnes), 4 to 4 1/2. Frank Mills, 6 to 6 1/2; the accounts published for the meeting, on the 10th, show a profit of 17851. 15s. 1d. on the quarter, and a dividend of 7s. per share (17501.) is recommended by the committee, which will leave a balance in hand of 21351. 17s. 4d. The lead sold during the quarter was 332 tons, at an average price of 151. 7s. 4d., realising 51017. 8s. 10d. Wheal Rose, 20 to 21; Wheal Seton, 19s. to 200. Wheal Buller, 22 to 24; the tin sale for the fortnight was 6 tons 18 cwt., realising 3701. 18s. 4d.; we understand a forged transfer of shares was sent to the pursuer more than a fortnight ago, and registered. This may account for the fall in shares some months ago, when there was no change in the mine; and it also renders more necessary than ever that some measure should be adopted for the safety of the shareholders, and the protection of secretaries and pursers.

East Lovell, 15 1/2 to 16; the shaft is sunk below the 45; lode worth 1001. per fathom for 12 ft. long. In the 40 west, on south lode, is worth 501. to 601. per fm.; the bottom stop, 601. per fm. South Callington, 14 to 14 1/2; the lode in the stopes in back of the 20 is reported as producing saving work, and the end north of engine-shaft improved, and looking well for a course of lead.

The Market for Mining Shares on the Stock Exchange has been moderately active during the week. Cape Coppers advanced to 61, 61 1/2, but finally closed at 51. 6. St. John del Reys are very good at 47 to 48; the advices by the mail now due are anxiously looked for, and the market closes firm. Cobres continue in demand at 28 1/2 to 24 1/2; this property is favourably received. Frontino shares have further declined, finally closing at 2 to 2 1/2; the absorption of these shares by the public is as active as ever, while speculative sales depress quotations. Washoe, early in the week, fell to 3 1/2, 4 1/2 prem., but finally closed at the highest quotation recently obtained—5 to 5 1/2 prem. The meeting to receive the report from the agent sent to inspect the property is expected to be held in a few days. Port Phillips are steady at 14 to 14 1/2. East del Reys are less firm, at 1 1/2 to 1 1/2 per share. British mines have been largely dealt in. Great Wheal Vorns have risen to 36, 36 1/2. The improving position of the mine, and the enhanced price of tin have, together, placed this mine first in the list of investments in this class of securities. West Chiverton are in great demand, at 80 to 85. Chiverton Moor, Chiverton, and Westworth are also eagerly absorbed at quotations.

IRISH MINE SHARE MARKET.—The Stock and Share Market was variously affected by the high price of money, and the two holidays observed on the Stock Exchange, since our last report. To report the several phases of sundry declines and more frequent advances in the market price of the mining shares would not be sufficiently interesting to compensate for the trouble of writing or reading the same, or for the space required. Suffice it for those interested to learn that, in consequence of improved prospects of the copper and pyrites markets, and favourable reports from several of the mines, the general tendency of the mining share market was upwards; of which none were, however, more strongly affected than the shares of the Wicklow Copper Mining Company and the Mining Company of Ireland. The former (21. 10s. paid) have realised, ex dividend, 181. 5s. for cash, and 181. 1

which had originally been reported upon somewhat fancifully and theodically by Mr. de Noy, but which has now been placed under the practical management of Mr. Spooner, whose experience in Wales ought to be a guarantee for the value of the quarries in question.

THE DOROTHEA WEST, GREEN, BLUE, AND RED SLATE COMPANY (LIMITED).—The prospectus of this company is published in another column of this day's Journal. It is established, not for the purpose of exploring an untried property, but for extending the business of a quarry long since established, and of almost world-wide reputation for the quality and colour of its green slates. For many years, most of the principal buildings in this country which are embellished with green slate have been covered with slates from this quarry, and among recent erections may be mentioned the new Charing Cross Railway Hotel, the London Bridge Railway Hotel, the Star and Garter Hotel at Richmond, and many others, which have been roofed with the same green slates. The value of green slate, which is now in such great demand for gothic structures, and, in fact, for every building approaching to architectural beauty, is almost fabulous, being on the average, per ton, of greater value than the copper ores of Cornwall. This statement appears at first almost incredible, until by actual comparison of figures it is shown, by an invoice of green slates lately supplied from this quarry to an eminent London slate merchant, that the quantity was 35 tons 15 cwt. 2 qrs., and the amount of the invoice £201. 19s. 2d. This quarry, it appears, also contains the blue and red veins of slate which have rendered its neighbour, the Dorothea Quarry, celebrated among the profitable quarries of Wales. Upwards of 400000 worth of slates was sold from this quarry in the past year, and it is expected that, by extended working, within twelve months the returns will amount to at least 100000 per month. The accounts for the past year are, very properly, open for inspection at the offices. If anything were wanting to give confidence to the soundness of this undertaking, it would be afforded by the significant fact that the statements in the prospectus are guaranteed by the names of the directors of the Prince of Wales, Princess of Wales, and Llanfair Slate Companies appearing on the direction, gentlemen who represent some of the most successful slate companies of modern times, one of which has actually returned 95 per cent. to its shareholders in the first year of its existence. The management is likewise to be in the hands of those whose success in this department has already been so marked.

THE VICTORIA SLATE COMPANY, with a capital of 50,00000, in shares of 50000, has been formed for working some promising slate veins in the baronies of Slieveadagh, Ifa, and Offa East, in the county of Tipperary. The property has been carefully examined and reported upon by Mr. George V. du Noy, who states that the immediate slate-yielding area to which this report refers occurs on the northern and eastern slopes of Carrickadon Hill on the southern side of the plateau, at the distance of five or six miles to the north of Carrick-on-Suir. It comprises three townlands—Clashnamut, 437 acres; Athenry, 655 acres; and Ahenny Little, 84 acres: thus giving an aggregate of 1176 acres, the whole of which is occupied by slate-yielding strata. The River Linghau bounds this property on the north and east for the distance of about 3½ miles. The highest level of the river at the extreme north-west end of the property above Castlejohn-bridge is about 300 feet, while its lowest level is about 149 feet, thus giving a fall of 151 feet in the distance stated. He considers the position of the Victoria Slate Quarries is about the very best with which he is acquainted, as it readily commands the port of Waterford. The quality of the slate is second to none in Ireland, and the quantity is inexhaustible, as 1176 acres of slate-yielding ground is offered to any company which would be induced to develop it. Extended workings would open up breasts of slate varying from 350 to 470 feet in height in the respective districts of about ½ mile and 500 yards. The prospectus will be found in another column.

THE LEESWOOD MAIN COAL, CANNEL, AND OIL COMPANY, with a capital of 60,00000, in shares of 20000, each, has issued its prospectus, the object of the enterprise being to purchase and further develop the well-known Leeswood Main Coal Colliery, near Mold, and erect a refinery for the manufacture of paraffin and other oils. The colliery adjoins the Coed Talon and Leeswood Cannel Coal Collieries, and is connected, by a branch line, with the Chester and Mold Railway. The purchase of the interest in the colliery, inclusive of plant and machinery, and tack-note for additional property, has been arranged for 30,00000, half payable in shares, and the remainder in cash, payable by instalments. The colliery is capable of yielding 15000 tons per week at present, and by two projected pits this yield may be doubled. Prof. Beckett, of Wolverhampton, has inspected the colliery, and reports that the seam is unquestionably of good quality, that it averages 11 ft. in thickness, and is without injurious partings. The tack-note relates to the minerals beneath 63 acres, lying to the north and north-east of the present colliery. Beneath this a good seam of the best quality is known to exist; it is likewise believed that cannel exists beneath the 53 acres unproved of the property on lease. There are three oil companies working surrounding properties, which have paid 10 per cent. per annum in dividends, and the directors consider that as this company will work their own cannel, and have a large acreage of main coal, they will be able to pay larger dividends. The prospectus will be found in another column.

The prospectus has been issued of **SPENCE'S PATENT NON-CONDUCTING COMPOSITION AND CEMENT COMPANY,** with a capital of 50,00000, in shares of 10000, each; the object of the enterprise being to extend the sale of substances mentioned in the title, which are largely in use among iron shipbuilders and engineers, have many advantages over ordinary felt and cover coating, with which boilers, steam-pipes, &c., have been hitherto covered, and have proved to be of such practical utility that the Admiralty has given orders for Spence's composition alone to be used. The rights and interests in the patent, subject to a royalty of 10s. per ton to the original patentee, has been acquired for 12,00000, half to be paid in cash, and half in paid-up shares. The works, plant, stock, and machinery, are to be taken at a valuation. The most satisfactory testimonials have been received of the efficiency of the composition, and the directors state that from reliable data in their possession they can confidently reckon upon a dividend of from 20 to 25 per cent.

At Redruth Tackling, on Thursday, 2705 tons of ore were sold, realising 15,00000, 4s. 6d. The particulars of the sale were:—Average standard, 124000, average produce, 63; average price per ton, 5s. 11s. 6d.; quantity of fine copper, 181 tons 1 cwt. The following are the particulars:—
Date. Tons. Standard. Produce. Price per ton. Per unit. Ore copper.
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WATSON AND CUELL'S MINING CIRCULAR.

WATSON AND CUELL,
MINING AGENTS, STOCK AND SHARE DEALERS, &c.
1, ST. MICHAEL'S ALLEY, CORNHILL, LONDON.

Messrs. WATSON and CUELL having made arrangements for transferring their weekly Circular, which has had so large a circulation during the past ten years, to the columns of the *Mining Journal*, their special reports and remarks upon Mines and Mining, and the state of the Share Market, will in future appear in this column.

In the year 1843, when Cornish mining was almost unknown to the general public, attention was first called to its advantages, when properly conducted, in the "Compendium of British Mining," commenced in 1837, and published in 1843, by Mr. J. Y. Watson, F.G.S., author of "Gleanings among Mines and Miners," "Records of Ancient Mining," "Cornish Notes" (first series, 1862), "Cornish Notes" (second series, 1863), "The Progress of Mining," with Statistics of the Mining Interest, annually for 21 years, &c., &c. In the Compendium published in 1843 Mr. Watson was the first to recommend the system of a "division of small risks in several mines, ensuring success in the aggregate," and Messrs. Watson and Cuell have always a selected list on hand. Perhaps at no former period in the annals of mining has there been more peculiar need of honest and experienced advice in regard to mines and share-dealing than there is at present; and, from the lengthened experience of Messrs. Watson and Cuell, they are emboldened to offer, thus publicly, their best services to all connected with mines or the market, as they have for so many years done privately, through the medium of their own Circular.

Messrs. WATSON and CUELL transact business in the purchase and sale of mining shares, and other securities, payments of calls, receipt, and transmission of dividends, obtaining information for clients, and affording advice, to the best of their knowledge and judgment, based on the experience of more than 20 years active connection with the Mining Market.

Messrs. WATSON and CUELL also inform their clients and the public, that they transact business in the public funds, railways, docks, insurance, and every other description of shares dealt in on the Stock Exchange.

Messrs. WATSON and CUELL are almost daily asked their opinion of particular mines, as well as to recommend mines to invest or speculate in, and they give their advice and recommend mines to the best of their judgment and ability, founded on the best practical advice they can obtain from the mining districts, but they will not be held responsible, nor subject to blame, if results do not always equal the expectations they may have held out in a property so fluctuating as mining.

Messrs. WATSON and CUELL having agents and correspondents in all the mining districts, and an extensive connection among the largest holders of mining property, have the more confidence in tendering their advice on all matters relating to the state and prospects of mines and mining companies, and are enabled to supply shares in all the best mines at close market prices, free of all charges for commission.

NEW INVENTIONS.

PROVISIONAL PROTECTION for six months has been granted for the following:—
C. WORKMAN, Commercial Wharf, Kingsland-road.—Improvements in the means and apparatus for consuming smoke in furnaces. Sept. 19.

W. UNWIN, Sheffield, York.—Improvements in the manufacture of iron. Sept. 25.

R. A. BROOMAN, 166, Fleet-street.—Improvements in moulding crucibles and other hollow articles of plastic materials, and in apparatus employed therein. Sept. 26.

S. C. SALISBURY, of New York.—Improvements in blast-furnaces. Oct. 2.

A. CRAIG, Leeward Hill Colliery, Mold, Flintshire.—Improvements in apparatus for extracting oil from shale, and other minerals. Oct. 4.

W. CLARK, 63, Chancery-lane.—Improvements in the treatment of copper ores in the manufacture of copper. Oct. 16.

LETTERS PATENT have been issued for the following:—
W. LEATHAM, Broadfield Works, Leeds, Yorkshire.—Improvements in machinery or apparatus for working or cutting coal or minerals, or for compressing or exhausting air to be employed therein, or for other purposes, some parts of which apparatus are also applicable to upright shafts and other parts for regulating the flow or discharge of steam or other elastic fluids. April 29.

H. BESSEMER, Queen-street-place, City.—Improvements in the manufacture of pig-iron or foundry metal, and treating castings of such metal. May 1.

W. HENDERSON, Glasgow.—Improvements in extracting copper and several other metals from certain ores of the metals. May 5.

SPECIFICATIONS published during the week:—
Furnaces for smelting iron, &c.; furnaces, &c.; coke-ovens, &c.; coke-ovens, &c.

Obtaining MOTIVE-POWER.—An invention has been provisionally specified by Messrs. Turner and Coughlin, of Piccadilly and Bermondsey, according to which it is proposed to compress air by a succession of pumps and receivers. In order to distribute the compressed air, and thereby convey motive-power to engines in various localities, they propose to lay down a main from the principal receiver. There are the necessary valves and cocks for regulating the supply.

CUTTING METAL.—An improved implement for cutting pipes and bars of metal has been invented by Mr. Wolstenholme, of Radcliffe, Lancashire; it consists of a revolving circular cutter, upon a suitable slide. The pipe or bar to be cut is secured in a vice or otherwise, and the circumference of the cutter is brought against the pipe or bar by means of a screw passing through the lower end of the slide, the implement is then turned round by the handle forming the continuation of the screw, and the cutter is set up by the turning of the screw. By this means the cutter gradually penetrates into the metal until the pipe is cut asunder, or the metal bar is sufficiently indented to enable it to be broken.

AGGREGATING COAL DUST.—Mr. Charles Noble, of New York, proposes to wet the coal dust with starch water, the plastic mass being moulded into suitable forms and dried.

VARNISH FOR METALS.—For this purpose Mr. H. A. de Briou, jun., of Welbeck-street, proposes to employ a compound of 45 ccs. of benzoin in 1 gallon of alcohol, or methylated spirit, the dissolution being made with a slow heat, and the compound filtered. To remove the varnish he employs collodion 4 parts and alcohol 1 part, mixed, and to remove the collodion he employs 18 parts and ether 2 parts. The varnish is suitable for silver plate and similar metal.

MANUFACTURE OF WELDED IRON TUBES.—In the ordinary manner of constructing heating-furnaces used in the manufacture of these tubes the furnace is made in two compartments, each compartment being provided with a fire-grate. One of the said compartments is called the back-hole or warming-furnace, and the other is called the welding-furnace. The steel, or partially formed tube to be welded, is first heated in the back-hole or warming-furnace, and afterwards transferred to the welding-furnace, where it is raised to a welding heat. The invention of Mr. James Fisher, of West Bromwich, consists in dispensing with the fire-grate at the back-hole or warming-furnace, and in so constructing and arranging the said back-hole or warming-furnace, and the welding-furnace, that the warming-furnace shall be heated by the waste heat from the welding-furnace. He builds the warming-furnace and welding-furnace side by side in the ordinary manner, but builds the warming-furnace without any fire-grate. He builds the welding-furnace in the ordinary way, excepting that he closes the end of the said furnace, instead of making it communicate directly with the stack. He perforates the wall separating the two furnaces with a series of holes, through which holes the flame and heated air from the welding-furnace pass into the warming-furnace, and from thence to the stack. By this arrangement the two furnaces are heated by the fire from one grate—namely, by the fire of the welding-furnace grate. It is claimed, that by constructing the heating-furnaces according to this invention great economy is effected in the fuel employed.

TREATMENT OF SULPHURETS.—A furnace, designed to simplify and cheapen the process of desulphurising auriferous and argentiferous sulphurets, has been invented by Mr. William Bruckner, of San Francisco. It dispenses with the large and cumbersome reverberatory hearth, and tall and expensive chimney, necessary for getting up a suitable draft. The furnace consists of a cylindrical iron grating, lined with brick, and having an orifice at each end about one-third the diameter of the cylinder. Upon the inside of the cylinder will be noticed a winding ridge, or rille, the object of which is to distribute the ore, and keep it constantly exposing fresh surfaces to the action of the flames, as the cylinder is made to revolve. This revolution may be produced in any convenient manner. In the one on exhibition it is caused by an endless chain passing over a revolving pulley. The cylinder rests upon friction rollers, upon which it is caused to revolve, instead of upon an axis. A small furnace is placed at one end, from which the flame is caused to pass into and through the cylinder; atmospheric air is also allowed to pass freely into the cylinder to hasten the process of desulphurisation. The first cost of construction, the cost of fuel for continuing the operation, and that of labour for attendance, and time occupied in the process, are all vastly reduced. We are not aware that it has yet been subjected to any protracted practical experiment, but we can see no reason, either mechanical or philosophical, which shall militate against its successful introduction against the ordinary reverberatory hearth, for desulphurising ores. It is well worth the careful examination of all parties interested in metallurgical operations.

OPERA AND MARINE GLASSES.—The comfort attending the use of binocular glasses, as compared with telescopes, has long been acknowledged, but until very recently the prices asked for them have been so high that they have been generally regarded as an expensive luxury, and their use has been confined almost exclusively to the opera. Within the last few years, however, Messrs. Saxon and Co., the optical instrument makers, of Edinburgh, have introduced an excellent binocular, which, although low in price, appears to be of the highest possible quality. The glass which we have just been testing is that sold by them at 8s., and is fully equal to those we have seen at three times the price. The material used in it is of the best possible quality, and the workmanship is really admirable. We believe that the great secret of the low price of price is to be found in the extent to which the division of labour has been carried, each instrument passing through the hands of over thirty workmen, instead of three or four, as usual. The glass is well entitled to the patronage it has received, and as it has stood the test of climates, hot, cold, and humid, it is equally valuable in all parts of the world. In Great Britain and India large numbers have already been sold, and for prospecting it is all that the mining or railway engineer need desire.

THE LEESWOOD MAIN COAL, CANNEL, AND OIL COMPANY (LIMITED).

Capital £60,000, in 30,000 shares of £20 each.
Deposit on application £1, and £1 on allotment.
Calls (if necessary) not exceeding £3 10s. per share, at intervals of not less than three months.

WILLIAM BUXTON, Esq., Castle-hill, Stafford—Chairman (Ex-Mayor of Stafford, and Director of the Stafford and Uttoxeter Railway).
HENRY TAYLOR, Esq., Flockersbrook House, Chester, colliery proprietor.
FREDERICK SEPTIMUS BATESON, Esq., Vale Cottage, Mold, Flintshire, cotton spinner.
JULIUS C. J. BAILEY, Esq., C.E., Newton-le-Willows, Lancashire, mining engineer.
WILLIAM GREGORY, Esq., York-buildings, Liverpool (West of England Fire and Life Insurance Company).
WILLIAM WRIGHT CRAIG, Esq., Leeswood, Mold, Flintshire, colliery proprietor.

The Union Bank of London, Charing Cross Branch.
Messrs. DIXONS and Company, bankers, Chester.
Manchester and County Bank, Manchester.

Messrs. Finchett, Maddock, and Hordern, Abbey-square, Chester.
Messrs. Roberts, Kelly, and Keene, Mold, Flintshire.

Henry White, Esq., 7, Tokenhouse-yard, Lothbury, London.
John Jones, Esq., Westminster-buildings, Chester.
Joseph Davies, Esq., Warrington.

TEMPORARY OFFICES.—
4, ABBEY SQUARE, CHESTER, and 2, SPRING GARDENS, S.W., LONDON.

PROSPECTUS.
This company is formed for the purpose of purchasing and further developing the well-known Leeswood Main Coal Colliery, situated at Leeswood, near Mold, Flintshire, and erecting a refinery for the manufacture of paraffin and other oils.

The colliery adjoins the long-established Coal Torton Colliery on the south, and the justly-celebrated Leeswood Cannel Coal Company's works on the west, and is connected, by means of a branch line, with the Chester and Mold Railway, the junction with the main line being at Padeswood station.

The proprietors have agreed to dispose of their entire interest in the colliery, and take note hereafter mentioned, inclusive of plant, machinery, railway wagons, stores, &c., for £20,000, one-half of which they will take in paid-up shares, the remaining half to be paid as follows:—£7500 out of the monies received for deposit and on allotment, £2500 at the expiration of three months from the date of the first payment, and £3750 at the expiration of three months next following. No promotion money will be charged to the shareholders.

The colliery comprises large quantities of Main coal, with which the present plant is capable of supplying the market for a considerable period; but it is proposed to sink two new shafts, at an outlay of £12,000, which may be conveniently extended over a period of two or three years.

The colliery has been inspected by Prof. Beckett, F.G.S., of Wolverhampton, whose long acquaintance with and study of the district eminently fit him for forming a correct opinion, and he states that this seam is unquestionably of good quality, and that it averages 11 ft. in thickness, and is without injurious partings.

The colliery is capable of raising at present 1500 tons per week, and by the expenditure of the additional capital required for the two new pits the raisings would be doubled. There is an incessant demand for the Main coal, and in the best markets, and the proprietors supply several railway and other companies with it.

Since the discovery of the Leeswood Cannel Coal, this district, previously distinguished for the first-rate quality of its Main coal, has become a rich and rapidly increasing centre of industrial importance, owing to the unequalled quality of its distilled mineral oils and associated useful products.

In addition to the minerals leased to the proprietors, they have been fortunate enough to obtain a large tract of land to prove and win the minerals under an estate containing 65 acres, lying to the north and north-east of their present colliery. As Cannel coal of good quality has been proved, and is being worked both on the north and east sides by two oil companies, there is little doubt of its existence over a large portion of this estate (indeed a seam of the best Cannel, from 16 to 18 in. thick, has been discovered cropping out on the surface of the estate within the last few days, and a pair of down-hills will be at once driven in the Cannel to prove the extent). Inasmuch, however, as no expenses have yet been incurred in relation to this estate, it has not been taken into account in estimating the purchase-money to be paid to the proprietors. The company will take the benefit of the lease, and have the option of taking a lease.

The extent of the acreage of the Cannel, under about 55 acres of the property in lease (exclusive of the 65 acres), has not yet been proved, but it is believed that Cannel exists there.

It is intended to erect a large number of retorts for the manufacture of the oil, the cost of which would be about £4000.

The following adjoining companies—the Coppo Oil Company, the Flintshire Oil Company, and the North Wales Oil Company (established for objects similar to those of this company) having declared dividends equal to 10 per cent., in addition to carrying over considerable sums to their next account, the directors can confidently recommend investments in this company, inasmuch as, by working their own Cannel, and having a large acreage of Main coal, they expect to be able to pay larger dividends.

It may be stated that 3½ tons of Cannel will yield 1 ton of oil. The cost of making 1 ton of oil (inclusive of Cannel, labour, casks, and other refining) will be £5. The average selling price of 1 ton of oil is upwards of £9. This company, by using their own Cannel, will enjoy an advantage over those who have to purchase Cannel for oil-making of about £4 profit per ton of oil. Thus, the market price of Cannel at the pit's mouth is 30s. per ton. It is expected that the Cannel raised by the company will not exceed 7s. per ton; there will, consequently, be a profit on the Cannel raised by the company of 23s. per ton.

Forms of applications for shares and all other information may be obtained from, and Articles of Association inspected at, the company's bankers and brokers, and at the company's offices in Chester.

TO BE RETAINED BY THE BANKERS.

TO THE DIRECTORS OF THE LEESWOOD MAIN COAL, CANNEL, AND OIL COMPANY (LIMITED).

GENTLEMEN.—Having paid to your bankers the sum of £ , I request you to allot me shares in the Leeswood Main Coal, Cannel, and Oil Company (Limited), and I hereby agree to become a member of the company, and to accept such shares, or any less number that may be allotted to me; and I request you to place my name on the Register of Members in respect of such shares.

Name in full.....
Residence.....
Date.....
Usual signature.....

CASHWELL LEAD MINING COMPANY (LIMITED).

Divided into 6400 shares of £3 each, £2 10s. paid up.

CHAIRMAN.
WILLIAM FRANCIS DE MEY, Esq., M.D., Eldon-square, Newcastle-on-Tyne.

DIRECTORS.
JOHN CLARK, Esq., Wharfedale, Gateshead-on-Tyne.
WILLIAM C. ARNISON, Esq., Allendale-town, Northumberland.
MR. SIMON JOEL, Newcastle-on-Tyne.
MR. THOMAS SLATER, Newcastle-on-Tyne.
MR. JOHN T. THOMPSON, Newcastle-on-Tyne.

SECRETARY.—Mr. Matthew Armstrong, Cumberland-row, Newcastle-on-Tyne.
MANAGER AT THE MINES.—Captain John Peart, Alston.

Cashwell was formerly known as Douke West End proper, and the eastern portion of this extensive royalty as Douke East End (see "Hunt's Mineral Statistics"), and has produced in its opening out about 3000 tons of lead ore of excellent quality. It is situated about six miles south from Alston, Cumberland, and adjoins the once-famed mine of Cross Fell to the east, and the operations of the cashwell have been principally confined to opening up a rich mine on the noted ledges or veins of Cross Fell, the main vein or lode running through the entire length of Cashwell. The importance of this fact cannot be overestimated, as from this vein Cross Fell produced its large returns of lead ore in its former workings, as much as 200 to 300 tons per month having been obtained for numbers of years, which, calculated at the low price of £13 per ton, gives £26,000 per annum; and the gross returns of this one magnificent property cannot have been far short of one million pounds sterling. Such success as this has from time to time encouraged Cashwell shareholders to push on their operations regardless of expense, and they are now about to receive a recompense equal to their indomitable perseverance. In Westgarth Foster's "Treatise on a Section of the Strata from New-shale-on-Tyne to the Mountain of Cross Fell," published in 1821, he characterises Cross Fell as the second mine of importance in its riches for lead ore in the district, and he thus speaks:—"This noble vein was discovered only a few years ago, and carried lead ore up close to the moss on the coal sills;" and another authority of considerable repute, and more recent, being published in 1861, in his able and learned work on "The Laws which Regulate the Deposition of Lead Ore in Veins of Alston Moor, by William Wallace, Esq., of the London Lead Company," thus dilates upon the veins of Cashwell; he says:—"Near the source of Cashwell, Douke vein contained lead ore, chiefly in the three yards levels and strata below to the bottom of the near limestone. This ore deposits as low as the copper basins; and it will be seen upon inspection of the general map (accompanying the work) that it is situated in that portion of the vein connected with conditions most favourable to the percolation and circulation of fluids, and favourable for lead ore."

Cashwell Mines have raised and sold since including June 3d, during the present year of 1865, lead ore to the extent of 500 tons; and as operations have been commenced at the eastern end of the royalty, the main vein or lode of Cross Fell having been fully proved to the extent of one mile in length, there are satisfactory indications of opening up one of the most extensive and richest mines in the kingdom. The present manager of Cashwell, Capt. John Peart, succeeded Capt. John C. Cain, now of Newhouse, Westdale, one of the managers of those extensive lead mines of W. B. Beaumont, Esq., M.P. There is about £700 to the credit balance, after the payment of all liabilities to the present date, and therefore there are no calls ever expected to be made, as the mines have been opened out satisfactorily. A large sum has been expended in bringing them to their present position, the lead ore at present worked giving a profit of 40 per cent. net. A great rise in the price of shares must necessarily take place before long, there being no calls expected to be made, and the prospecting, calling for years of labour and thousands of pounds expenditure. All this has been done, and as there is only the limited number of 6400 shares at 30s. to be disposed of, applications for the same will be received till the 23d of November, by Messrs. BREVIS and LYNCH, of 3, Crown-court, Old Broad-street, London, and 79, Clayton-street, Newcastle-on-Tyne, after which they can only be sold at a high premium.

GOLD MINING.—The UNDERSIGNED, who has had a large experience in the management of auriferous quartz mines at home and abroad, OFFERS HIS SERVICES TO REPORT UPON OR TAKE THE MANAGEMENT OF MINES IN NORTH WALES.

TOS. BELT, Prince of Wales Mine, Dolgellau.

TO QUARRY PROPRIETORS, &c.—MR. SAMUEL JENKINS.

DIXAS MAWDWY, is now preparing for the press a work on the "QUARRIES OF THE PRINCIPALITY, THEIR HISTORY," &c., and as he wishes to make it as complete as possible, he would invite Proprietors, Managers, &c., to favour him with particulars concerning any quarries they may be connected with. Also, brief notices of any new improvements in machinery, &c.

TO SLATE QUARRY PROPRIETORS AND OTHERS.

W. P. DAVIS, having had MANY YEARS' PRACTICAL EXPERIENCE IN SLATE QUARRIES, IS PREPARED TO INSPECT AND FAITHFULLY REPORT THEREON.—Address, Mr. W. P. Davis, Wadebridge, Cornwall.

THE DOROTHEA WEST, GREEN, BLUE, AND RED SLATE COMPANY (LIMITED).

Registered under the Companies Act, 1862, whereby the liability of each shareholder is limited to the amount of his share.
Capital £50,000, in 10,000 shares of £5 each.
Deposit £1 per share on application, and £1 10s. on allotment.

THOMAS WATERS BRITTON, Esq., Dagenham, Essex, Director of the Princes of Wales Slate Company (Limited).
Colonel HUGH CALVELEY COTTON, Anglesey, Gwynedd, Hampshire.
THOMAS GOODWIN, Esq., Innam-cour, Fenchurch-street.
Lieut.-Col. H. GARNET MAN, Halesford Lodge, Sevenoaks, Kent, Chairman of the Princes of Wales Slate Company (Limited).
JAMES MAW, Esq., Stratford, Essex, Director of the Llanidris Green and Blue Slate Company (Limited).
BANKERS—The National Bank, Old Broad Street, E.C.
AUDITOR—F. Bertram Smart, Esq.
SECRETARY—C. H. Harvey, Esq.
OFFICES.—13, OLD JEWRY CHAMBERS, E.C.

This company is being formed for the purpose of purchasing and extending the workings of an established and valuable quarry in Carnarvonshire, known as the "Dorothea West," lying on the hill-side of Nantlle Vale, and embracing and interesting nearly all the valuable veins of slate in that district, including the celebrated Dorothea veins.

The company have agreed to purchase the quarries, which are in full work, together with the plant and machinery, for the sum of £20,000, one-half of which is to be paid in cash, and the remainder in paid-up shares. This amount is far less than the capital expended in developing the quarries, and bringing them into their present profitable condition; but the original proprietors have stipulated for retaining a large interest in the company.

There are seven known veins of slate in the property, of fine colour, split, and quality, the slates from which can be seen on the quarry at Carnarvon, from whence they are shipped, or sent off by rail to all parts. The new Charing-cross Railway Hotel, the London-bridge Hotel, and the Star and Garter Hotel, Richmond, are covered with green slate from this quarry.

The green slate from the Dorothea West has long been known as the finest in colour and quality, as well as the largest vein of green slate in Carnarvonshire. Green Dorotheas are now worth £19 per thousand, or £5 6s. 8d. per ton, and other slates bear a proportionate price, being all about double the price of the best blue, and exceeding the average price per ton of all the copper ores of Cornwall. The prices list, which can be had with the prospectus, will show the actual and relative prices of green and blue slates.

It will be obvious, therefore, that this quarry cannot be considered, in any respect, as of a speculative character. The accounts for working, and for slates manufactured and sold, during the past year, amounting to upwards of £4000, may be inspected at the office. Within twelve months from this date there is no doubt, when additional capital shall have produced extended working, the returns of slate will amount to at least £1000 per month, and the profits be increased in proportion.

The two principal quarries are worked open from the surface, without any machinery for lifting, by levels driven into the workings at various depths. The tip for rubbish is worked for about 100 yards in depth and nearly half a mile in length.

In many essential respects this quarry possesses great advantages over others in the valley, and can be worked in several open quarries at the least cost of any quarry in the district, owing to its elevation above the level of the surrounding country.

A railway to Carnarvon passes within about half a mile of the works, and another line is proposed to run through the property, which will bring the quarry into direct communication with the two shipping ports of Carnarvon and Port Madoc.

The grant extends over 60 acres of land, and the quarries are capable of great extension in virgin ground, by the gradual development of the veins in regular course of working, and without any extraordinary outlay.

The quarries are held under a lease, of which 27 years are unexpired, and an agreement has been entered into for the extension of such lease to 40 years. The royalty on best slates and seconds of large sizes is 2s. 6d. per ton, and on smaller sizes 1-13th, with a dead rent, which merges in the royalty.

The reports appended thereto of Mr. Griffith Ellis, the present manager of the late Mr. Asheston Smith's quarry, and of Mr. John Roberts, local agent of the Prince of Wales Quarry, will be found to confirm the foregoing statements.

The working of the quarries is proposed to be under the local direction of Mr. John Lloyd Jones, of Nantlle, and the general superintendence will be in the hands of the General Manager of the Prince of Wales Slate Company.

Report of Mr. GRIFFITH ELLIS, the Manager of the late Mr. Asheston Smith's Llanidris Quarries, on the Dorothea West Slate Quarry.

March 20.—I visited and inspected the above-named slate quarry on the 19th March, 1865, and find that the slate veins upon which the quarry is worked are in the same position as Col. Pennant's, Mr. Asheston Smith's, Glynrhwy, Penryn, Clodfa, Penryn, Penryn, Dorothea, Talyarn, and Cilgwyn. Your openings at present are at the south-east beds (or veins) of this formation, the green, red, and grey (or Penryn and Clodfa's), and in the lowest quarry you have the Dorothea coming in, which dips under the others, and which could not be worked to any extent without working the others first. But the others will pay well for the working, as there is such a great demand upon the green and red, and the grey, or blue, as you call it; it is called here, I think, I saw slate blocks of tons are worked both at Penryn and here, and the New Quarry, of which thousands of tons are worked both at Penryn and here, shipped every month. In the meadows below you will find all the other veins dipping under the workings you have already opened, and where, no doubt, you will find abundance of good slate-making rock. The manufactured slates which I saw on the works were equal to any that I have seen got out of the same sort of beds either at Penryn or here. I need not go into any estimate about the working of the quarries you may open afresh, but I must say that those opened are now being properly worked, and from the prices obtained, and the quantity, it is clear from the books that everything is in a prosperous condition, and in a fair way to be, as far as slate-making rock is concerned, not second to any in the Vale of Nantlle. It has been proved that the Cilgwyn, Talyarn, Dorothea, and Penryn are the same beds or veins of slate, all dipping under the Clodfa's and Penryn's, and are in reality repetitions of the same vein, the blue, red, and green from Clodfa's to the extreme boundary of Penryn's.

GRIFFITH ELLIS, Dinorwic Quarries.

Report of Mr. JOHN ROBERTS, the Resident Manager of the Prince of Wales Slate Quarry.

March 25.—I have visited and inspected the Dorothea West Quarry, and the following is my opinion of the quarry. The blue slate vein is the same as that of the Dorothea Slate Quarry, of great breadth, and the green vein is the largest and the best in the Carnarvonshire. I was very much pleased with the nature of the rock, both green and blue, particularly the joints, both foot and back, which are most regular and true. There, I saw slate blocks of tons are worked both at Penryn and here, and the New Quarry, of which thousands of tons are worked both at Penryn and here, shipped every month. In the meadows below you will find all the other veins dipping under the workings you have already opened, and where, no doubt, you will find abundance of good slate-making rock. The manufactured slates which I saw on the works were equal to any that I have seen got out of the same sort of beds either at Penryn or here. I need not go into any estimate about the working of the quarries you may open afresh, but I must say that those opened are now being properly worked, and from the prices obtained, and the quantity, it is clear from the books that everything is in a prosperous condition, and in a fair way to be, as far as slate-making rock is concerned, not second to any in the Vale of Nantlle. It has been proved that the Cilgwyn, Talyarn, Dorothea, and Penryn are the same beds or veins of slate, all dipping under the Clodfa's and Penryn's, and are in reality repetitions of the same vein, the blue, red, and green from Clodfa's to the extreme boundary of Penryn's.

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Notices to Correspondents.

Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be regularly kept on hand: it then forms an accumulating useful work of reference.

ON THE CAUSES OF CERTAIN BOILER EXPLOSIONS.—With reference to Mr. Doubleday's paper on this subject, published in the Journal of Oct. 14, may I ask if this "air-de-charge" is the same destructive power, for if this most fearful agent be caused by the heat at first absorbing or driving away the oxygen, might not the atmospheric air in the boiler have the same effect, and could not oxygen be made in some artificial way to supply the necessary elements to liquify these "choking masses of hydrous steam"?—JOURNALS.

RAILWAY AND MINING CREDIT COMPANY.—This company does not appear to have been registered in England, but has an office in George-yard, Lombard-street. So far as the London company is concerned, it appears to be a branch of the Credit Mining of Paris, which was established some 10 or 12 years since in Paris. The managing director was, and we believe still is, Mr. Paganelli di Zivovo. No proper mining has yet been issued in England, nor is it generally known to what extent the company has assisted mining industry in France. Messrs. John Taylor and Son, of the City, have the enterprise during its earlier existence, but we are not aware of its having any commercial transactions with English mines. It is generally considered that there is an opening for a sound Mining Credit Company in this country, and that the French connections of the Credit Mining would not be looked upon with ill favour if it be shown that during the period of its existence in France it has made reasonable and satisfactory progress. We shall gladly publish particulars, upon being furnished with the necessary documents.

STEAM OR CHIMNEY ROADS.—A great deal of attention was not long ago directed to traction engines, so much so indeed that some were sanguine that we were on the eve of having horse power generally, or at least to a large extent, superseded; but lately of late we have heard of the traction engines themselves being employed, much less we do not even hear of steam cars. Now, I should be glad to know whether the traction engines are still used, and if so what is the smallest team for which they can be substituted? What are the particular recommendations of the several engines, and what is their relative cost? The great evil of traction engines has always appeared to me to be the difficulty of getting the same hold of the road as with horses, and it is to this, I think, that inventors should turn their attention. What I mean is, it is to this (say) a 6-horse power would not draw an equal load to that which would be drawn by six horses. I am aware that some little allowance should be made for the weight of the carriage, but the engine is mounted, but as a 6-horse engine could easily be drawn by a single horse, a 4-horse engine (nominal) should certainly do the work of a team of six horses. Now, I am inclined to think that an engine of the weight of an ordinary portable engine, capable of being worked to 7-horse power, would do the work of six horses. Although, no doubt, a 20-horse engine might do the work of 20 horses. Now, I think the remedy will be found in placing the whole apparatus in such a way as to make the engine itself carry the load.—J. H. T.

WHY TRAVEL.—If the purser would furnish the Journal with at least a regular monthly report he would greatly oblige.—DISTANT SHAREHOLDERS.

GERMANIA COMPANY.—"ANOTHER SHAREHOLDER."—There are old documents and traditions that the Indians, about 60 years ago, were in the habit of regularly working for gold on the Quebrada property during the dry seasons, but the exact locality from whence the gold was obtained has been lost sight of during the revolutionary wars. In respect to the capability of the Quebrada Mines to return 300,000,000 worth of ore per annum, this estimate, we are informed, is considered not over-stated by the engineers and mining agents, who have inspected the property; and, however bold Captain Francis's calculation may appear, he gives good data for his statement.

EARLY CASES.—Why is not the Journal a means of communication between the committees of management and the shareholders in this company, as in most others? At the meeting, on August 29, those shareholders who do not attend the bi-monthly meetings are informed that the cash in hand is 1060l. 15s. 3d. We will say nothing of the bill due and ready for sale (which has no doubt been sold), but we will come to the October meeting, just held, upon the authority of which, doubtless, we find it stated that the accounts of July and Aug. show a credit balance of 806l. 19s. 10d. Set a word of intermediate, and the balance is not any paltry reason for a dividend not having been declared. Surely, it is high time for the shareholders generally to inquire into their property, its prospects, and above all, its management, instead of allowing it, whatever its intrinsic value, to be deteriorated daily, through want of knowledge whether or not the property itself is worth next to nothing, or the management worth less. No shareholder need imagine that he is injuring his property (or rather the shares he holds in it) by bringing it before the public in anything but the most favourable light, as it now stands, if he can simply believe that knowing the worst is far better than continuous suspense.—ONE WHO DOES.

GRANT DEVEN AND BEDFORD (COLLIERY) MINING COMPANY.—We have received a very long letter from "A Shareholder" on the affairs of this company, but for which we cannot afford space, though, from the extracts we shall make, its object will be sufficiently shown, and its purpose, perhaps, as well effected. "A Shareholder" refers to the letters which have appeared, and regrets that they have not been answered, as much for the officials themselves as the shareholders. Regretting the apathy, he says—"To encourage the doubting, and give more vigorous energy and effect to the enquiry, I would say it is believed, and not without sound judgment, that the mine may be made a profitable and lasting one in a very short time, provided that the shareholders take proper steps in calling a general meeting, and fully investigating the present and future prospects, not forgetting the present management." "The third point of operation at the mine is the driving a cross-cut north from the 40 and west, to see whether there is any other part of the mine underlying south. The work that is carried on at this point is simply a waste of money; as a proof of this I will give one fact—31 fms. east of the above-named cross-cut, now in course of driving, another cross-cut has been driven 5 fms. in the same direction, and for the same purpose, to see whether there was any more of the lode north than that already intersected, but nothing was seen in this driving, neither are there any indications whatever seen in the driving of the 31, on the course of the lode, to show that a part of the lode had gone north. Another point respecting the lode underlying north. I have been informed on good authority that a discussion took place some 12 weeks ago between a shareholder and two directors respecting this lode, and it ended in a conviction that something should be done at once to lay open this lode; consequently an order was sent to commence driving a cross-cut north in the cross-course, so as to take the lode by the quickest and cheapest manner, which could have been driven for 21. 10s. per fm.; this order was taken no notice of, and the directors did not know for more than five weeks after that their order had not been carried out." "It is true that only three directors' meetings have been legally held since the last general meeting, which was about 10 months ago." After such statements made and questions asked, I think it is high time to look into matters, and if we wish to save our property, call a general meeting at once. We think it is very desirable that a meeting should be convened with as little delay as possible; it will afford dissentients an opportunity of making all necessary enquiries, and enable the directors to lay before the shareholders particulars of the actual state and prospects of the undertaking.

SHARE DEALING.—We never interfere in the sale or purchase of shares; neither do we recommend any particular mine for investment or speculation, or broker through whom business should be transacted. The addresses of most of the latter appear in our advertising columns.

THE MINING JOURNAL.
Railway and Commercial Gazette.

LONDON, NOVEMBER 4, 1865.

There is a decrease in the general account of our exports for the nine months ending Sept. 30 of 3,686,784l., but for the month itself there is an increase of 3,228,739l., as compared with the corresponding periods of last year. The Board of Trade returns, whence these figures are taken, give the total declared value of exported articles, the produce and manufacture of this country, at 119,717,377l. for the three-quarters of this year, against 123,404,161l. in 1864, and for the month at 17,316,681l., against 14,687,942l. in Sept., 1864. With such enormous results of the enterprise of this country, it does seem immaterial whether fluctuations in the returns occur, but, on the contrary, is evidence of the wonderful efforts made to expand commerce in every branch, and which necessarily must, from time to time, produce variation in the amount of shipments. The plan of the cause of the drain for gold which occurred lately, in the form of the continental exchanges being in favour of this country, and there is good reason in considering the matter in this light; but, be the cause what it may, it is clear that it was altogether internal, and, consequently, to return in due course of business to its source of issue. It is important to remark that, although there is decrease in several months of this year, as respects the returns of last year, yet, with one exception, there has been an advance, month by month, in 1865. In January, the total value was 10,489,339l.; for February, 11,376,214l.; March, 13,770,154l.; April, 12,071,111l.; May, 13,194,758l.; June, 13,227,062l.; July, 14,113,410l.; August, 14,158,648l.; and September, 17,316,681l.

Mining industry fully maintains its position in these gigantic figures, and it is particularly gratifying to find that of the general decrease of 3,686,784l. only 500,924l. is represented by metals and their manufactures, being about one-seventh of the total. The aggregate for the nine is a collective decrease in six heads of 1,328,119l., and an increase in five of 827,105l., hence the balance of 500,924l. Of the former, iron remains, 31,205l.; copper, 291,619l.; lead, 214,024l.; steel, 193,715l.; zinc, 206,012l.; tin-plates, 63,449l.; hardware and cutlery, 56,239l.; and brass, 20,000l. In the general exports of the kingdom, which, by the same reckoning, will be just about 160,000,000l. sterling. It is scarcely necessary to say that the interchange in the precious metals and bullion with foreign countries continues in favour of England. The

exports for the nine months amounted to 9,908,015l., and the imports to 14,421,018l., giving, consequently, 4,513,003l. to our credit. The exports consisted of 5,488,466l. in gold, and 4,424,549l. in silver, and the imports were 9,643,001l. in gold, and 4,778,017l. in silver, being an excess in gold of 4,159,535l., and in silver of 353,468l. The chief import was from Mexico and South America, which amounted 5,752,854l., against 316,578l. exported to the same places. The United States furnished 3,377,081l., against 19,991l.; Australia, 2,155,364l., against 37,617l.; Portugal, 663,918l., against 80,943l.; British North America, 129,337l., against 80,392l.; West Coast of Africa, 96,610l., against 42,216l.; British South Africa, 53,359l., against 19,469l.; Turkey, 1468l., against 303l.; "other countries," 339,310l., against 46,255l. On the other hand, we sent to France 3,090,205l., and received 948,369l.; to Egypt, 1,999,453l., against 276,393l.; to Spain, 1,408,963l., against 22,468l.; to Holland, 1,067,477l., against 39,972l.; to the Hanse Towns, 614,481l., against 15,365l.; and to Belgium, 543,924l., against 149,510l. Gibraltar, 61,689l., without any export from this country; Russia, 19,637l., on similar terms; and Malta, 2807l.

DETECTION OF FIRE-DAMP IN COLLIERIES.

In connection with colliery operations, there is nothing which requires such continuous and careful attention as the ventilation, and it cannot be doubted that, even when the utmost skill is brought to bear, the prevention of accumulations of fire-damp is practically impossible; it is, therefore, of paramount importance that a ready and infallible means of detecting the presence of the destructive gas should be at the disposal of those responsible for the safety of the mine, and that a means should be provided of giving light to the collier in workings wherein the air, although not so pure as at surface, is not sufficiently contaminated to be dangerous to human life. Until the beginning of the present century the sole means of ascertaining that the fire-damp existed to a dangerous extent was by the actual ignition of the entire mass, whilst the dim light of the steel-mill was the only one with which a dangerous atmosphere could be entered, and even with this there was the danger of the sparks inflaming the gas.

In 1812 the inefficiency of the then existing arrangements was made painfully apparent by the Felling Colliery explosion, the fact of a pit judiciously worked and, as was supposed, adequately ventilated being subjected to so extensive a calamity as to cause the sacrifice of three-fourths of the large staff of workmen employed, leading to the most earnest efforts to devise a remedy. The first lamp capable of burning in an explosive atmosphere without communicating flame to the gas was devised by Dr. CLANNY, of Sunderland, and consisted of an arrangement for blowing through water the air to support combustion, and for permitting the escape of the heated air through the same medium. This arrangement being necessarily somewhat complicated, efforts were made to discover a more simple one, which led to the introduction of the safety-lamps now generally in use. The fact that burning gases would not pass through tubes below a certain diameter was first noticed by TENNANT, in his "Researches on Flame," and the knowledge thus acquired was practically applied to the production of safety-lamps by STEPHENSON and DAVY. As the equivalent of minute tubes, the employment of fine wire-gauze not unnaturally presented itself, and the success which attended the substitution is attested by the fact that wire-gauze lamps are the only safety-lamps which have been employed in collieries during the past half-century; their safety and efficiency when constructed with ordinary skill being, so far as an illuminator is concerned, all that need be desired; although Mr. J. J. ATKINSON, in his report for this year, gives two cases of explosions through the gauze of perfectly constructed safety-lamps. But the safety-lamp has proved of even greater value for detecting the presence of fire-damp than for enabling the collier to work in dangerous air, the facility afforded for igniting the gas enclosed within a limited and protected area instead of inflaming the entire mass having enabled important tests to be made, which would otherwise have been impracticable.

Another step has now been made in connection with the subject of fire-damp by the introduction of the simple and highly sensitive indicator devised by Mr. G. F. ANSELL, of the Royal Mint. As in the case of the safety-lamp, ANSELL'S Fire-damp Indicator is the practical application of a natural law previously eliminated by Mr. THOMAS GRAHAM, F.R.S., the Master of the Mint; this law may be popularly explained somewhat thus—when two different gases, as atmospheric air and fire-damp for example, are brought into contact with each other they have a tendency to mix, and whilst this mixture is taking place the atoms of each gas travel at a speed peculiar to that gas, which speed remains the same under all circumstances. Another peculiarity is that the speed of a gas remains the same whether it is passing into space or into another gas, and whether it is passing through a porous substance or is perfectly free. Mr. ANSELL practically applies these facts to the detection of fire-damp, and since his indicator enables the exact percentage of the deleterious gas to be ascertained, the application is of the utmost importance. It fortunately happens that a light gas like fire-damp travels much faster than heavy ones like atmospheric air; and as Mr. ANSELL'S indicator is filled with the atmospheric air, it is obvious that when it is taken into an explosive atmosphere the fire-damp will enter the indicator faster than the atmospheric air escapes; consequently, the contents of the indicator being increased, it is easy to apply such increase to the moving of a lever, by which, as Mr. ANSELL expresses it, he obtains "a motive-power, by which he can telegraph to a distance (as well as give an audible signal at the actual seat of danger) the locality in which fire-damp exists."

Upon the first mention of Mr. ANSELL'S apparatus, a question was raised as to whether the index having once indicated the presence of fire-damp would return to its normal position ready to indicate afresh; and as, from some misconception of the point raised, the question was not distinctly answered in the affirmative, many have given no further attention to the invention, upon the supposition that it was merely an ingenious scientific toy, unfit for practical use. So far from there being any grounds for these conclusions, it is a fact that practically ANSELL'S Fire-damp Indicator distinctly shows the percentage of fire-damp present in every level passed through, and in every working place visited, no matter how great the variation in the places successively tested. The misconception appears to have arisen from Mr. ANSELL having replied upon strict chemical facts, which the practical man would regard as unimportant. Assuming the indicator to be taken into an atmosphere containing (say) 8 per cent. of fire-damp, that percentage would be at once indicated; if he were then taken into 6 per cent., the indication of 6 per cent. would be equally rapid, and so on for any other percentage. This is all that colliery owners require, and there can be no doubt that the adoption of the instrument will be so general as to prove that since the discovery of the safety-lamp no more important instrument than this has been placed at their disposal. The fact that in either of the mixtures mentioned the index of the indicator would return to zero after being some time in the gas is one of no more interest to the practical man than the fact that flame may under certain circumstances be drawn through the DAVY lamp. The indicator is instantaneous in its action, and reliable in its results, and is, therefore, entitled to be universally adopted.

SMOKE-CONSUMING FURNACE.—Mr. Samuel Godfrey, of Middlesbrough-Tees, has recently patented some improvements in the construction of furnace-bars and fire-grates well worthy the attention of all interested in smoke consumption. Mr. Godfrey states in his specification that his invention consists in constructing fire-bars movable or fixed, the fire surface of each of which is grooved, and forms a right line, or proximate right line, such fire-bars having a number of wings, with the same right line and grooved surface, but otherwise each bar is of a curved form, with notches near the angles, made by the junctions of the right lines with the curved lines, for the purpose of gripping the clinkers and bringing the same through the bars. The wings when the bars are in position in the grate are interposed between one another, as is exemplified by the drawings accompanying the specification. Mr. Godfrey states—"By the use of my invention I obtain a larger area of air space than can be obtained by the bars hitherto used, and, consequently, effect more complete combustion of the fuel, preventing the accumulation of slag, clinker, or the fouling of the bars, as they can have rotative or rocking motion given thereto. Thereby effecting a considerable saving in the consumption of fuel, and diminution of the labour of the fireman." Mr. Godfrey further states that for the side bars he should use rocking bars, with wings angularly formed as regards the fire surface, so that one part may be part of the bottom of the grate, and the other part be part of the side of the grate, with curved lines connecting the two extremities of the angle lines. The bars can be placed either longitudinally or transversely in the furnace, and are applicable to reverberatory furnaces, as well as boiler furnaces, whether marine, stationary, or locomotive. Moreover, the movable fire-bars can be disposed vertically at the front, the back, and the side of the furnace or grate; or

such bars may be fitted in any other convenient manner or position. Fixed side bars can be used similarly winged. In order to afford rotative or rocking motion to the bars, suitable gearing, shown by the drawings accompanying the specification, is used by Mr. Godfrey.

DUBLIN EXHIBITION—No. VI.

Besides the steam-engine of Mr. HACKWORTH, already described, there are two other steam-engines which are also worthy of particular notice. One of these is a large expansive engine, by Mr. JAMES C. KAY, Phoenix Works, Bury, Lancashire. It is of a most interesting construction, and contains patent equilibrium and expansion slide-valve arrangements. Without, however, entering into a detailed description, the following may be stated as the principal points:—The valves, which are simple plate-valves, are only about one-sixth of the ordinary size, work without packing springs, &c., having only as much pressure as is necessary to make them steam-tight. The valves for the admission of steam to the cylinder are adjusted so as to give steam on the piston after passing the centres, the object being to strike a moving body, having then only the resistance of the machinery, or duty on engine, instead of giving steam lead to the engine, or giving steam at dead centres. Again, the valves for cutting off steam to work expansively, which is done very rapidly, are designed to perform this duty to any extent, as the pressure of steam or duty on engine requires, and the exhaust valves are so arranged as to open readily and remain wide open during nearly seven-eighths of the stroke. The valves, which are all worked by an ingenious arrangement of ordinary eccentricities, are well regulated in their action, and there is a good deal of stability in the working or vital parts of the engine; besides which there is a probable reduction in the labour required to keep the engine in good working condition, as well as a considerable saving in the consumption of fuel, from the perfect manner in which the expansive valves perform their duty, and a very material diminution in friction also.

The other engine alluded to is a fine horizontal one, of 25-horse power, which belongs to the Exhibition building. It is intended for driving a fan or ventilating apparatus in the winter season, to work under the floor of the building, the air being afterwards heated so as to preserve a uniform temperature, which will be requisite when the building is arranged as a winter garden. It is also designed for working a set of pumps to supply a tank on the roof of the Exhibition, which contains 20,000 gallons of water, and also for working a pump of ARFOLD'S construction, for the supply of the fountains in the grounds.

There is also one of LENOIR'S Gas-Engines exhibited. It has ANDERSON'S patent Gas Exhauster combined with it, and very much resembles a horizontal steam-engine in appearance. The motive-power is the ordinary coal gas, which, with atmospheric air, is introduced into the cylinder in the proportion of 11 parts of air to one of gas. This is then exploded by means of an electric spark, the expansive force thus obtained giving motion to the piston. The cost of working, taking gas at 4s. per 1000 ft., is estimated, including expenses of battery, not to exceed 3d. per hour. This kind of engine, however, though pretty generally used in Paris, has not as yet made much way in England.

An interesting machine, called the "Patent Portable Silent Fan," is exhibited by Messrs. FREEMAN and GRUNDY, Manchester. It is, however, not quite noiseless, but works pretty easily; and it is stated that a speed of 1500 revolutions per minute may be obtained by 20 strokes of the actuating lever. It is mounted on a cast-iron framework, and the gearing for producing the required speed is complete in the same machine, so that it can be applied direct to its work.

There is an imposing display of wheel-tyres and axles, comprising some fine specimens of work belonging to OWEN'S Patent Wheel, Tyre, and Axle Company. The wheels exhibited by this company, which are perfectly solid throughout, are welded in one piece by an immensely powerful steam-hammer, and the most satisfactory evidence is afforded to show the completeness of the welding. The cast-steel tyres also exhibited by the same company are made from a circular ring, thoroughly hammered and rolled according to OWEN'S patent rolling process. BURKE'S patent Tyres, which are likewise solid throughout, containing neither hole nor rivet, possess some advantages, not the least important of which is in the comparative non-liability to fracture from the mode in which the wheel and tyre are connected together. Where these tyres have been tried it appears they have given satisfaction; but an objection is raised as to the difficulty of making use of the tyre in the case of tightening, or of repairs being afterwards needed.

MESSRS. SHARP, STEWART, and CO., Atlas Works, Manchester, have on view a number of GIFFARD'S Injectors; also, one of SKILLER'S patent Self-Acting Screwing Machines, which is said to possess many advantages over the ordinary machines of the same class, giving a more perfect thread, as well as doing work quickly, and enabling the cutting dies to be preserved in good condition. They also exhibit a fine Slot Drilling Machine, capable of cutting out forked ends, cotter holes, grooves and key-boards from the solid, and it is stated that it works with such accuracy that the cuts being once made the application of the file is quite unnecessary afterwards.

Amongst several excellent machines exhibited by Messrs. MUIR and CO., Manchester, is a fine 6-inch centre Self-Acting Screw-cutting Foot-lathe, with patent double treddle and improved anti-friction external crank and chain rolling motion. It has also change wheels, with a full complement of chucks and driving plates to suit. The bed, which is 8 feet long, is got up perfectly true, the cranks are fixed at opposite centres, and besides the advantage of this lathe being able to be started from any point, the workman is enabled to get the full benefit of any additional assistance when necessary. There is also a new reversing motion to tail-pin, for the purpose of sliding or cutting screws left or right, without changing wheels or stopping the lathe. The compound slide rest, moreover, is fitted up with an ingenious contrivance for drawing out the tool quickly, which is a very important advantage in screw-cutting.

A fine Slotting, Shaping, and Key-grooving Machine is also exhibited by the same firm. It is capable of slotting a wheel 3 feet in diameter. The ram, which has a maximum stroke of 6 inches, works in adjustable metal V-slides, and can be set so as to work at any required distance from the table. The driving-shaft is fitted with a four-speed cone and powerful fly-wheel, and imparts motion to a disc by means of a pinion gearing into a spur-wheel on the disc shaft, the disc being connected to the ram by a wrought-iron connecting-rod. The teeth of the spur-wheels driving the disc are well cut, and the table is fitted with compound slides, longitudinal, transverse, and circular, the transverse and circular slides being fitted with self-acting motions, adjustable to any rate of traverse, so as to give either a very fine or a very strong cut. A novel feature in this machine is the application of two supplementary cross-slides upon the circular slide, by which the machine is enabled to cut diagonally at any required angle, and the work, when once bolted down upon the table, can be finished without refixing. It is stated that, owing to the manner in which this machine performs its work, there is no necessity afterwards for filing.

Mr. W. H. WARD, of 75, Hatton-garden, London, and New York, exhibits his improved patent Self-Centering Railway, and other Turning Platforms, for swinging or turning heavy bodies. It appears that since 1862 some important alterations have been effected in these machines, by substituting spherical tread-wheels, working between travelling rings and circular half-grooved trucks, in place of the former arrangements. They work easily, are readily turned, and seem adapted for several other purposes besides railways, and it is stated that they are already in use on some lines having their termini in London.

A variety of interesting machines are exhibited by Messrs. BOOTH BROTHERS, Dublin, including HOFFMAN'S Patent Hand Shears, which is a very useful tool, and two Patent Roller Patches, one of which—intended for railway work—can be bolted on to a small truck to run along the line. The machines, besides being portable and readily set up, are stated to be very efficient in working. Amongst the Miscellaneous Articles are some excellent specimens of Iron, by Messrs. MOORE and MANBY, Dudley and London, including some of WOODCOCK'S Patent Roll Girders, and tested samples of Lord WARD'S iron. Also a number of fine brass and copper tubes, by the Broughton Copper Company (Limited), and some remarkable bituminised paper tubes, by Messrs. KARL FUERS and Co., of Hamburg.

ON THE INTERNAL HEAT OF THE EARTH AS A SOURCE OF MOTIVE POWER.—Mr. George Graves, M.R.C.S., read a paper on this subject at the Manchester Literary and Philosophical Society, of which the following is an abstract:—It has been very generally admitted that coal will not cease to be brought up to the cost, but at that increased cost it will still be for a long time obtainable. The author considered the real insurmountable obstacle to be the high

The great inequalities which exist, to the disadvantage of Wolver

Nov. 4, 1865.]

India Office.

BY ORDER OF THE SECRETARY OF STATE FOR INDIA
IN COUNCIL, notice is hereby given that the DIRECTOR-GENERAL OF
STORES FOR INDIA will be READY, on or before MONDAY, the 6th November, to
RECEIVE PROPOSALS in writing, sealed up, from such persons as may be willing to supply—
CAKE COPPER.
And that the conditions of the said contract may be had on application at the India
Store Office, Cannon-row, Westminster, where the proposals are to be left any time before
Two o'clock P.M., of the said 6th day of November, 1865, after which hour no tender will
be received.
GERALD C. TALBOT, Director-General.
India Office, 30th October, 1865.

METAL AGENCY.—A GENTLEMAN, established for five years
in London as sole representative of a leading manufacturing firm, and well
connected with the export buyers of metals, is now PREPARED TO ACCEPT A SECOND
AGENCY ON COMMISSION.—Apply, by letter, to "X. X. X.," Mining Journal Office,
26, Fleet-street, London.

AGENCIES FOR COPPER, SPelter, YELLOW METAL,
IRON, LEAD, TIN-PLATES, RED AND WHITE LEAD, &c., WANTED, by a
Gentleman well known to, and possessing influence with, many of the best Indian
Houses, from whom he could insure a good business, having been for years connected
with the largest firms in the East India trade. Highest references given.—Address
"A. W.," No. 7, Grove-vale, near Peckham-rye, London, S.

TO CAPITALISTS.—COPPER MINES.—THE ADVERTISER,
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COPPER MINES IN PORTUGAL, with easy access to the coast by rail, DESIRES
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The ore contains copper, silver, sulphur, and arsenic, and can be delivered in England
for 25s. per ton.—Address, "Portugal," Mining Journal Office, 26, Fleet-street, E.C.

TO CAPITALISTS.—WANTED, A PARTNER IN ONE OF THE
MOST PROMISING COLLIERIES IN NORTH WALES. The royalty is about
500 acres, and is already proved to contain four valuable seams of coal, adapted both
for house and steam purposes, and the returns on the capital invested will be at least
50 per cent. annually. The capital is required for the full development of the concern,
and if preferred the incoming partner may have the entire management, financially and
otherwise.—Address, "W. 16," Post-office, Liverpool.

TO ENGINEERS AND OTHERS.—FOR SALE, BY PRIVATE
CONTRACT, THE GOODWILL AND BUSINESS OF A PORTABLE STEAM
ENGINE COMPANY, together with the STOCK OF ENGINES (fourteen in number);
also a quantity of ENGINEERS' TOOLS.—For particulars, apply to Messrs. Mear and
DAUBENANT, 2, King's Bench Walk, Temple, E.C.

TO PERSONS INTERESTED IN MINING.—TO BE SOLD,
THE LEASE OF A MINE in the immediate neighbourhood of the GREAT WHEAT
YORK district. The terms are very favourable.—For further information, apply, by
letter, to "A. M.," No. 16, Southampton-buildings, Holborn, London.

TO COLLIERY OWNERS.—WANTED, A GOOD HOUSE
COAL, ADAPTED TO THE LONDON AND DUBLIN TRADE.—Address, stating
price in wagons at the nearest station, or delivered at King's-cross or Paddington, to
Mr. F. A. New, Managing Director, Joint-Stock Coal Company (Limited), chief office,
49, Fleet-street, London, E.C.

COMMISSION AGENCY.—A GENTLEMAN, residing in the
heart of the West Cornwall mining district is WILLING TO UNDERTAKE THE
SALE OF CANDLES, STEEL, ROPE, or any other MATERIALS USED IN MINING,
on commission. The highest references will be given. Advertiser has a large mining
connection. Apply, "H. W.," Mining Journal Office, 26, Fleet-street.

A GENTLEMAN having an extensive connection with Merchants,
Manufacturers, and others, would be GLAD TO UNDERTAKE THE SALE OF
PATENTED ARTICLES or INVENTIONS, on commission.—Apply to Mr. W. T.
HAWLEY, patent and mining agent, 8, Small-street, Bristol.

LEAD ORES WANTED.—Apply to the RUNCORN SMELTING
COMPANY, Runcorn, Cheshire.

ENGINE FOR SALE, 40-inch cylinder, nearly new, with fittings
complete; now on Tamar Mine. For price, &c., apply to Messrs. HARK
and WHITFIELD, solicitors, 1, Mitre-court, Temple, or to Mr. F. G. LANE, 2, Royal Exchange,
London, E.C.

THE VAL-SASSAM MINES COMPANY (LIMITED).—Notice
is hereby given, that the Directors have this day made a CALL OF ONE
POUND PER SHARE, payable on the 4th day of December next.
W. G. WILLIAMS, Sec.
6, Queen-street-place, London, E.C., November 1, 1865.

THE EAST DEL REY MINING COMPANY (LIMITED).—Notice
is hereby given, that the FOURTH ANNUAL GENERAL MEETING
of the shareholders will be HELD at the London Tavern, Bishopsgate-street Within, on
TUESDAY, 14th November, at Two o'clock, when the directors and superintendents
reports, and also the accounts and balance-sheet made up to the 30th June last, will be
presented; and for general purposes, as authorised by the Deed of Settlement.
November 2, 1865.
GEO. H. STANFORTH, Sec.

THE GONNESA MINING COMPANY (LIMITED).—Notice is
hereby given, that the SECOND ORDINARY GENERAL MEETING of the
shareholders will be HELD at this office, on the 4th day of November next, at Two
o'clock in the afternoon, to receive the report of the directors, and a statement of accounts
for the year ending 30th June last, and for general business, as authorised by the
Articles of Association.
In conformity with the Articles of Association, the following directors will retire from
office at this meeting, viz.:—Robert Henty, Esq., and John Orred, Esq., but both are
eligible for re-election, and offer themselves accordingly.
The auditors, Frederick Enthoven, Esq., and John Phillips, Esq., will also retire from
office, but are eligible, and offer themselves for re-election.
By order of the Board, W. G. WILLIAMS, Sec.
6, Queen-street-place, London, E.C., October 26, 1865.

NOTICE OF REMOVAL.
MESSRS. WARD AND JACKMAN,
STOCK AND SHAREDEALERS, have REMOVED from 2, Adam's-court
to No. 1, CUSHION COURT, OLD BROAD STREET, CITY, E.C.
BANKERS: London and Westminster, Lothbury.

NOTICE OF REMOVAL.
MR. J. P. ENDEAN, MINE AND GENERAL SHARE
DEALER has REMOVED from 1, Crown-court, Old Broad-street, to more ex-
tensive and convenient offices, at 5, FINCHURCH LANE, LONDON WALL, op-
posite Great Winchester-street.—June 30, 1865.

MESSRS. C. THOMAS AND CO., CIVIL AND MINING
ENGINEERING OFFICES,
POOLFOLD CHAMBERS, CHAPEL WALKS, MANCHESTER,
and REDRUTH, CORNWALL.

RICHARDS BROTHERS,
MINE AGENCY OFFICES,
ABBEY MEAD, TAVISTOCK.

MR. D. STICKLAND, M.E., having had upwards of 40 years
mining experience in Cornwall, several years of which he has had the entire
management of mines therein, enables him to GIVE GOOD ADVICE thereon.
MINES INSPECTED and FAITHFULLY REPORTED ON. DEALER IN MINING
RAILWAY, and OTHER SHARES.
His monthly Circular forwarded on receipt of six postage stamps.
Criddis Mine, St. Issey, Padstow, Cornwall.

MR. R. W. JAMES, SHAREDEALER, MINING
EXCHANGE, CAMBORNE, being in the most central part of the mining dis-
trict of Cornwall, should be consulted by speculators what to buy and what to avoid.

ROBERT LIBBY AND SON,
MINE AND SHAREDEALERS, &c., CAMBORNE, CORNWALL.
Recommend the undermentioned mines for immediate investment:
East Lovell. Rosewarne United. Margaret.
Wendron Consols. North Dolcoath. New Clifford.
Mines inspected by competent agents.

MESSRS. BEOR AND KENRICK,
MINING ENGINEERS,
RUABON, NORTH WALES.
Messrs. BEOR and KENRICK, through their practical acquaintance with the mineral
properties of North and South Wales, are open to survey estates and mines, and report
thereon.

MINING OFFICES, MANCHESTER.
THOMAS MOLYNEUX AND CO., MINE AGENTS,
SHAREBROKERS, and GENERAL COMMISSION AGENTS. Reliable
information can be obtained as to purchase and sale of shares.
Office of the Hazel Grove Silver-Lead Mining Company (Limited), Flintshire. Pros-
pectuses, reports, &c., of this valuable property may be had on application to No. 28
Princess-street, Manchester.

NORTH OF ENGLAND MINING AND ENGINEERING OFFICES,
MANCHESTER.
MESSRS. HARVEY AND CO., MINING ENGINEERS,
AGENTS, AND SHAREDEALERS, CLARENCE CHAMBERS, MAN-
CHESTER, are at all times in a position to deal in all the market Dividend and Pro-
gressive Mine shares, and also to advise on all mining matters, being practically ac-
quainted with the business, and having a daily communication from the mining dis-
tricts of Devon and Cornwall.
Messrs. HARVEY and Co. publish a monthly "Mining Circular," containing a valu-
able summary of mining information. Forwarded gratis on application.
The Circular for October contains special reports of Devon Wheal Lopes and Wheal
Trevelan.
Bankers: The Consolidated, Manchester; and the Alliance, Lothbury, London.

BARRETT AND CO., No. 9, SPRING GARDENS, CHANCERY
CROSS, are PREPARED TO GIVE EVERY INFORMATION ON BRITISH AND
FOREIGN MINES, and have a large number of SHARES FOR SALE, which will pay
from Fifteen to Thirty per cent. Their "Investment Review" can be had on applica-
tion, and contains some of the safest and best securities in Mines, Railways, Eastern
and Indian Stock, &c.

FOUNDRY, HAYLE, SEPT. 29, 1865.—SIR: We beg to inform you
that, in consequence of our INCREASING BUSINESS IN LONDON, we have
purchased the HAYLE FOUNDRY WHARF (formerly Crown Wharf), NINE ELMS,
where we shall carry on in all their branches the businesses of FOUNDRERS and
ENGINEERS.
Having by this arrangement provided greater facilities for the dispatch of work con-
fided to us by our friends in London, and being also enabled to extend our business, we
are, in addition to the usual Engineering work hitherto undertaken by us, prepared to
SUPPLY MINING MACHINERY from this wharf at the shortest notice, where also
our resident engineer will be in attendance to give information in designing general
plans and details of the most improved machinery for mining and other purposes.
Our offices hitherto at Clarence Chambers, 12, Haymarket, will from this date be
transferred to the Hayle Foundry Wharf, Nine Elms, S., where all communications in-
tended for our London branch should be addressed.
We are, Sir, your obedient servants,
HARVEY AND CO.

CAUTION—TO MANUFACTURERS OF TIN AND TERNE
PLATES.—The undersigned, being PATENTEES of TWO PATENTS for
IMPROVEMENTS IN THE MANUFACTURE OF TIN AND TERNE-PLATES,
dated and numbered respectively June 6, 1860, No. 1393, and March 19, 1863, No. 788,
HEREBY GIVE NOTICE to all Manufacturers of Tin and Terne-plates that they will
be LIABLE FOR ANY INFRINGEMENTS or USE OF THE SAID PATENTS, or
either of them, unless they are protected by license to be duly granted by the said
patentees, which licenses the said patentees are ready at any time to grant upon
terms to be agreed upon, upon application to them at the Cockley Iron works, near Kid-
derminster.
JOHN SAUNDERS.
JOSEPH PIPER.
Cockley, August 12, 1865.

NICKEL AND COBALT REFINING, AND GERMAN SILVER
WORKS, 16, OZZELL STREET NORTH, BIRMINGHAM.
STEVEN HARKER begs to inform the Trade that he has the following articles
or sale:—
REFINED METALLIC NICKEL. OXIDE OF COBALT. [WIRE, &c.]
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NICKEL AND COBALT ORES PURCHASED.

GOLDENHILL, COBALT, NICKEL, COLOUR, BORAX, AND
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NEAR STOKE-UPON-TRENT, STAFFORDSHIRE.
JOHN HENSALL WILLIAMSON, MANUFACTURER AND REFINER.
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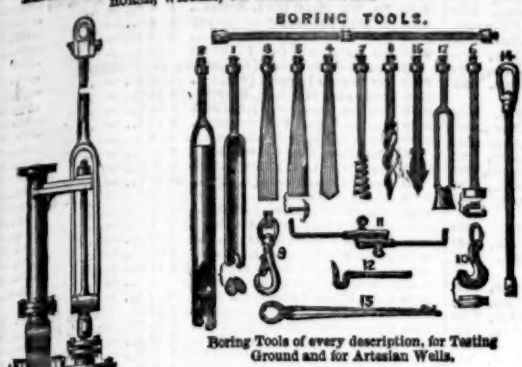
About 8000 of the 10,000 shares of the company have been issued, and the directors,
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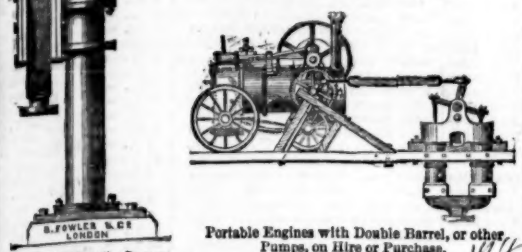
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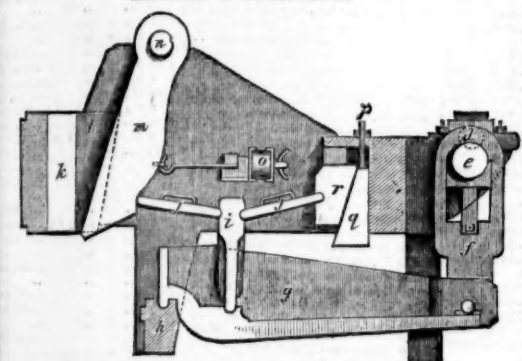
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presented to the Court, and an interim order granted by Vice-Chancellor Stuart; all parties are hereby
warned that they will be proceeded against for selling colourable imitations aforesaid.

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International Exhibition, 1862—Prize Medal.



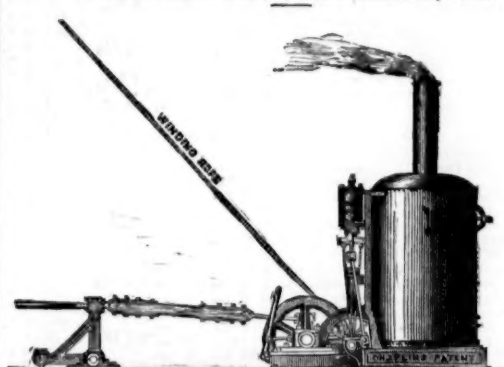
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Prize Medal—International Exhibition, 1862.



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STRONG. NO FOUNDATION OF CHIMNEY STALK BEING NE-
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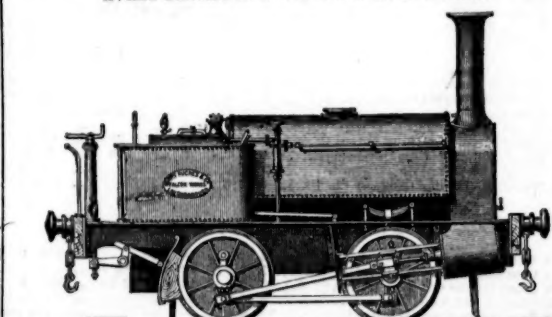
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BASTIER'S PATENT CHAIN PUMP,
APPARATUS FOR RAISING WATER ECONOMICALLY, ESPECIALLY
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J. U. BASTIER begs to call the attention of proprietors of
mines, engineers, architects, farmers, and the public in ge-
neral, to his new pump, the cheapest and most efficient ever
introduced to public notice. The principle of this new pump
is simple and effective, and its action is so arranged that ac-
cidental breakage is impossible. It occupies less space than
any other kind of pump in use, does not interfere with the
working of the shafts, and unites lightness with a degree of
durability almost imperishable. By means of this hydraulic
machine water can be raised economically from wells of any
depth; it can be worked either by steam-engine or any other
motive power, by quick or slow motion. The following
statement presents some of the results obtained by this hy-
draulic machine as daily demonstrated by use:—
1.—It utilizes from 90 to 92 per cent. of the motive power.
2.—Its price and expense of installation is 75 per cent. less
than the usual pumps employed for mining purposes.
3.—It occupies a very small space.
4.—It raises water from any depth with the same facility
and economy.
5.—It raises with the water, and without the slightest in-
jury to the apparatus, sand, mud, wood, stone, and every ob-
ject of a smaller diameter than its tube.
6.—It is easily removed, and requires no cleaning or at-
tention.

BASTIER'S PATENT CHAIN PUMP may be seen daily
in operation at Messrs. SAMUEL BERGER and Co.'s Patent
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